

STRUCTURAL GENERAL NOTES

1. ARCHITECTURAL ELEVATION 100'-0" = MATCH ADJACENT BUILDING MAIN FLOOR ELEVATION (FIELD VERIFY).
2. EXISTING CONSTRUCTION
A. DIMENSIONS, ELEVATIONS AND DETAILS OF EXISTING CONSTRUCTION HAVE BEEN OBTAINED FROM LIMITED FIELD INVESTIGATION AND EXISTING DOCUMENTS. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS NECESSARY TO PROPERLY COORDINATE NEW AND EXISTING CONSTRUCTION, AND PRIOR TO FABRICATION AND CONSTRUCTION, NOTIFY THE ENGINEER OF ALL VARIATIONS IN THE DETAILS, DIMENSIONS, AND ELEVATIONS OF EXISTING CONSTRUCTION.
WITH THAT SHOWN ON THE DRAWINGS.
B. CLEAN AND PREPARE ALL EXISTING SURFACES WHICH WILL BE IN CONTACT WITH NEW CONSTRUCTION AS INDICATED AND AS ACCEPTABLE TO ENGINEER. APPLY BONDING COMPOUND TO ALL EXISTING CONCRETE AND MASONRY SURFACES WHICH WILL BE IN CONTACT WITH NEW CONCRETE IMMEDIATELY PRIOR TO PLACEMENT. PROTECT EXISTING MATERIALS FROM DAMAGE DURING CONSTRUCTION.
C. FURNISH AND INSTALL TEMPORARY SHORING OR BRACING AS NECESSARY TO PROVIDE SUPPORT AND STABILITY FOR EXISTING WALLS AND FRAMING DURING DEMOLITION AND CONSTRUCTION.
3. FUTURE CONSTRUCTION
STRUCTURE DESIGN INCLUDES PROVISIONS FOR SECOND STORY AND ROOF EXPANSION. MAXIMUM DESIGN LOADS FOR FUTURE EXPANSION ARE INDICATED IN DRAWINGS.
4. EQUIPMENT INSTALLATION
A. ALL OPENINGS SHOWN SHALL BE VERIFIED, AND ALL STRUCTURAL DIMENSIONS AND DETAILS PERTAINING TO EQUIPMENT INSTALLATION SHALL BE COORDINATED BY THE CONTRACTOR WITH THE ACTUAL EQUIPMENT FURNISHED.
B. EQUIPMENT SUPPORTS, ANCHORAGES AND OPENINGS NOT SHOWN ON THE STRUCTURAL DRAWINGS, BUT REQUIRED BY OTHER CONTRACT DRAWINGS, SHALL BE PROVIDED PRIOR TO PLACING CONCRETE.
C. MECHANICAL UNITS SUPPORTED BY ROOF OR FLOOR STRUCTURE ARE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER. ALL KNOWN UNITS HAVE BEEN SHOWN ON PLAN. IF UNITS' GEOMETRY INCREASES, OPERATING WEIGHT INCREASES, IF LOCATION CHANGES, IF ADDITIONAL UNITS ARE REQUIRED, OR STRUCTURAL CHANGES ARE REQUIRED FOR ANY REASON, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND COORDINATION OF ALL DETAILS PERTAINING TO THE INSTALLATION OF THE ACTUAL EQUIPMENT. DESIGN SHALL BE SUBMITTED FOR STRUCTURAL ENGINEER-OF-RECORD REVIEW.

APPLICABLE SPECIFICATIONS AND CODES

CONSTRUCTION AND DESIGN SHALL BE IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE (IBC), 2009 EDITION WITH LOCAL AMENDMENTS, AND WITH THE LATEST EDITION OF THE APPLICABLE SPECIFICATIONS AND THE REQUIREMENTS NOTED AS FOLLOWS:

ASCE 7-05 "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES"

DESIGN LOADS

1. DESIGN LOADS AND LOAD APPLICATIONS ARE IN ACCORDANCE WITH BUILDING CODE.
2. BUILDING CATEGORY IV
3. FLOOR LOADS
A. UNIFORM FLOOR LIVE LOADS
i) OFFICE BUILDINGS (FILE & COMPUTER ROOMS) 125 PSF
ii) OFFICE BUILDINGS (LOBBIES & 1ST FLOOR CORRIDORS) 100 PSF & 2,000 LBS CONCENTRATED LOAD
iii) OFFICE BUILDINGS (OFFICES + PARTITION FLOOR) 50-15 PSF & 2,000 LBS CONCENTRATED LOAD
iv) FILE STORAGE & COMPUTER ROOMS 125 PSF
v) MECHANICAL ROOMS 150 PSF
vi) OFFICE BUILDINGS (CORRIDORS ABOVE FIRST FLOOR) 80 PSF & 2,000 LBS CONCENTRATED LOAD
vii) STAIRS, LANDINGS & EXITS 100 PSF
viii) FLOOR LIVE LOAD REDUCTIONS APPLIED IN ACCORDANCE WITH THE BUILDING CODE.
B. UNIFORM FLOOR DEAD LOADS
i) PRECAST PLANK FLOOR SYSTEMS 85 PSF
(INCLUDES CARPET, 2" CONCRETE TOPPING, 8" PRECAST PLANK & 5/8" THICK GYPSUM CEILING BELOW)
ii) CEILING DEAD LOADS (MECH & ELEC) 5 PSF
(INCLUDES CEILING FRAMING, TYPICAL MECHANICAL & ELECTRICAL ELEMENTS)
4. ROOF LOADS
A. SNOW LOAD CRITERIA
i) BASIC GROUND SNOW LOAD Pg = 50 PSF
ii) EXPOSURE FACTOR Ce = 1.0 (PARTIALLY EXPOSED, EXPOSURE C)
iii) THERMAL FACTOR Ct = 1.1 (COLD VENTILATED AREAS)
iv) IMPORTANCE FACTOR Is = 1.2
B. MINIMUM ROOF SNOW LOAD 42 PSF (HEATED STRUCTURES)
46 PSF (COLD VENTILATED ROOF SYSTEMS)
C. DRIFT SURCHARGE LOADS IN ACCORDANCE WITH ASCE 7.
D. FLAT ROOF DEAD LOAD
i) EPDM ROOF 60 PSF
(INCLUDED EPDM ROOFING AND 8" PRECAST PLANK, BALLAST NOT INCLUDED IN DESIGN)
ii) CEILING DEAD LOAD (MECH & ELEC) 5 PSF
(INCLUDES CEILING FRAMING, TYPICAL MECHANICAL & ELECTRICAL ELEMENTS)
iii) CEILING SPECIALTY DEAD LOADS (IT AREA) SEE DRAWING S203
iv) FUTURE DESIGN LOADS SEE PLAN
E. SLOPED ROOF DEAD LOAD
i) SHINGLED ROOF 20 PSF
(INCLUDES SHINGLES, PLYWOOD SHEATHING, TRUSSES, INSULATION & 5/8" THICK GYPSUM CEILING BELOW)
ii) CEILING DEAD LOAD (MECH & ELEC) 5 PSF
(INCLUDES CEILING FRAMING, TYPICAL MECHANICAL & ELECTRICAL ELEMENTS)
F. ROOF SUPPORTED MISC. EQUIPMENT SEE SPECIAL LOADS BELOW OR NOTED ON PLANS
5. WIND FORCES
A. BASIC WIND SPEED 90 MPH
B. EXPOSURE CATEGORY C
C. IMPORTANCE FACTOR Iw = 1.15

COMPONENT AND CLADDING WIND PRESSURES FOR FLAT ROOFS (PSF)

	TRIBUTARY AREA (SQ. FT.)			
	0-10	10-20	20-50	50-100
1	8.3	7.8	7.1	6.5
	-20.3	-19.8	-19.1	-18.6
2	8.3	7.8	7.1	6.5
	-34.1	-30.7	-25.5	-22.1
2'	NA	NA	NA	NA
	NA	NA	NA	NA
3	8.3	7.8	7.1	6.5
	-51.3	-42.7	-30.7	-22.1
3'	NA	NA	NA	NA
	NA	NA	NA	NA
4	18.6	17.1	16.3	15.5
	-20.2	-19.4	-18.6	-17.1
5	18.6	17.1	16.3	15.5
	-24.8	-23.3	-21.7	-19.4

COMPONENT AND CLADDING WIND PRESSURES FOR GABLE ROOFS (PSF)

ZONES	TRIBUTARY AREA (SQ. FT.)			
	0-10	10-20	20-50	50-100
1	18.6	18.1	17.4	16.9
	-20.3	-19.2	-18.0	-16.9
2	18.6	18.1	17.4	16.9
	-23.8	-22.6	-21.5	-20.3
2 OVERHANG	NA	NA	NA	NA
	-37.6	-36.4	-35.3	-34.1
3	18.6	18.1	17.4	16.9
	-23.8	-22.6	-21.5	-20.3
3 OVERHANG	NA	NA	NA	NA
	-37.6	-36.4	-35.3	-34.1
4	20.3	18.6	17.7	16.9
	-22.1	-21.2	-20.3	-18.6
5	20.3	18.6	17.7	16.9
	-27.2	-25.5	-23.8	-21.2

6. SEISMIC CRITERIA
A. SEISMIC DESIGN CATEGORY A
B. IMPORTANCE FACTOR I = 1.50
7. SPECIAL LOADS
A. MECHANICAL EQUIPMENT LOADS ACTUAL OPERATING LOADS
B. PARTITION AND INTERIOR WALL LIVE LOAD 5 PSF LATERAL
8. ADDITIONAL LOADS REFERENCED ON THE STRUCTURAL DRAWINGS.

CONSTRUCTION LOADS

1. STRUCTURES HAVE BEEN DESIGNED FOR DEAD LOADS AND THE DESIGN LOADS NOTED ABOVE. PROVIDE TEMPORARY BRACING, SHORING, OR OTHER SUPPLEMENTAL SUPPORT DURING CONSTRUCTION AS NECESSARY TO PROTECT THE STRUCTURES FROM EXCESSIVE CONSTRUCTION LOADS.
2. DURING ERECTION OF THE STRUCTURE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY BRACING TO WITHSTAND ALL LOADS TO WHICH THE STRUCTURE MAY BE SUBJECTED, INCLUDING LATERAL LOADS, STOCKPILES OF MATERIALS, AND EQUIPMENT. SUCH BRACING SHALL BE LEFT IN PLACE AS LONG AS REQUIRED FOR SAFETY AND UNTIL ALL FRAMING, INCLUDING ROOF STRUCTURE, IS IN PLACE.
3. SUPPORTING FLOORS, ROOFS, STRUCTURAL SLABS, AND BASIN TOP SLABS SHALL BE PLACED PRIOR TO BACKFILLING AGAINST WALLS OR FILLING OF BASINS. OTHERWISE PROVIDE SUFFICIENT WALL BRACING.

LATERAL FORCE RESISTING SYSTEM

1. LATERAL PRESSURES ON THE EXTERIOR WALLS, WHICH SPAN VERTICALLY, ARE TRANSFERRED TO THE FLOOR AND ROOF DIAPHRAGMS. COLLECTED LATERAL FORCES BY THE DIAPHRAGMS ARE TRANSFERRED TO THE FOUNDATION SYSTEM BY SHEAR WALLS BY A COMBINATION OF SHEAR AND ROTATIONAL COUPLE (UPLIFT AND DOWNWARD) FORCES.

FOUNDATION

1. FOUNDATIONS ARE DESIGNED IN ACCORDANCE WITH SOIL INVESTIGATION MADE BY _____ PROJECT REPORT NUMBER _____ DATED _____
2. MINIMUM FROST COVER FROM GRADE TO BOTTOM OF FOOTING IS 48 INCHES UNLESS NOTED OTHERWISE (60 INCHES IN UNHEATED AREAS)
3. SHALLOW SPREAD FOUNDATION DESIGN CRITERIA
A. MAXIMUM ALLOWABLE NET SOIL BEARING PRESSURE 2,000 PSF
B. LATERAL SOIL PRESSURE (EQUIVALENT FLUID PRESSURE) 60 PCF
4. SHALLOW SPREAD FOUNDATION SYSTEM
A. FOOTINGS TO BEAR ON COMPACTED NATIVE SOILS OR ENGINEERED FILL.
B. ALL TOPSOIL, FILL AND OTHER UNSUITABLE MATERIAL SHALL BE REMOVED.
C. THE GENERAL CONTRACTOR TO PROVIDE GEOTECHNICAL SERVICES TO INSPECT THE EXCAVATED AREA TO ENSURE ALL MATERIALS REQUIRING REMOVAL HAVE BEEN REMOVED AND COMPACTION OF BACKFILL IS SATISFACTORY TO ACHIEVE DESIGN BEARING PRESSURE.
D. AVOID EXCESSIVE WETTING OR DRYING OF THE FOUNDATION EXCAVATIONS DURING CONSTRUCTION.
BACKFILL AGAINST WALLS WITH FILL ON BOTH SIDES SHALL BE COMPACTED IN EQUAL LIFTS EACH SIDE OF WALL. WALLS BACKFILLED FROM ONE SIDE ONLY SHALL HAVE ALL SUPPORTING SLABS, PERMANENT FRAMING OR TEMPORARY BRACING IN PLACE PRIOR TO PLACEMENT OF BACKFILL.

CAST-IN-PLACE CONCRETE

1. CONCRETE CONSTRUCTION SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE'S (ACI) "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" (ACI 318) AND "SPECIFICATION FOR STRUCTURAL CONCRETE BUILDINGS" (ACI 301).
2. CONCRETE CONSTRUCTION IN HOT WEATHER SHALL CONFORM TO ACI 305.
3. CONCRETE CONSTRUCTION IN COLD WEATHER SHALL CONFORM TO ACI 306.
4. DETAILING, FABRICATION AND PLACEMENT OF REINFORCEMENT SHALL CONFORM TO ACI 315.
5. MATERIALS
A. CONCRETE
i) STRUCTURE CAST-IN-PLACE Fc = 4,000 PSI
ii) EXTERIOR WALKS, CURBS, RAMPS Fc = 4,000 PSI
iii) CONCRETE FILL Fc = 3,000 PSI
B. REINFORCING MATERIALS
i) REINFORCING BARS ASTM A615, GRADE 60
ii) WELDED WIRE FABRIC
iii) THE USE OF POLYPROPYLENE FIBERS AS A SUBSTITUTION TO WELDED WIRE FABRIC IS PROHIBITED.
6. ALL BENT REINFORCING BARS SHALL BE SHOP FABRICATED ONLY. RE-BENDING OR WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED UNLESS AUTHORIZED BY ENGINEER.
END HOOKS IN REINFORCING BARS, SHOWN ON THE STRUCTURAL DRAWINGS BUT NOT DIMENSIONED, SHALL CONFORM TO ACI 318.
7. CONCRETE COVER OVER REINFORCEMENT SHALL BE 2 INCHES CLEAR, EXCEPT FOR THE FOLLOWING, UNLESS OTHERWISE NOTED:
A. CONCRETE PLACED AGAINST AND PERMANENTLY IN CONTACT WITH EARTH 3 INCH CLEAR
B. CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH EARTH OR WATER 1.5 INCHES CLEAR
i) BEAMS, COLUMNS 1.5 INCHES CLEAR
ii) WALLS 1.5 INCHES CLEAR
iii) SLABS 0.75 INCHES CLEAR
9. REINFORCEMENT SPlice REQUIREMENTS
A. LAP WELDED WIRE FABRIC ONE FULL MESH AT SPICES.
B. REINFORCEMENT SPICES NOT PERMITTED EXCEPT AS DETAILED OR AUTHORIZED BY ENGINEER.
C. LAP REINFORCING BARS THE FOLLOWING MINIMUMS AT ALL SPICES, CORNERS AND INTERSECTIONS, UNLESS OTHERWISE INDICATED. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12 INCHES ON CONCRETE CAST BELOW THE BAR.

BAR SIZE	REGULAR BARS	TOP BARS
#3	1'- 4"	1'- 10"
#4	1'- 9"	2'- 5"
#5	2'- 2"	3'- 0"
#6	2'- 7"	3'- 7"
#7	3'- 2"	4'- 7"
#8	4'- 3"	6'- 0"
#9	5'- 5"	7'- 7"
#10	6'- 10"	9'- 7"
- D. STAGGER ADJACENT REINFORCEMENT LAP SPICES IN WALLS 18 INCHES MINIMUM.
E. BEAM AND CONTINUOUS SLAB REINFORCEMENT
i) SPICE TOP REINFORCEMENT AT CENTERS OF SPAN BETWEEN SUPPORTS.
ii) SPICE BOTTOM REINFORCEMENT AT SUPPORTS.
iii) TERMINATE BEAM'S TOP REINFORCEMENT WITH STANDARD HOOK AT END OF CANTILEVER OR DISCONTINUOUS BEAMS.

10. PROVIDE BAR SUPPORTS TO PROPERLY SECURE AND SUPPORT REINFORCING BARS. IN ADDITION TO NORMAL ACCESSORIES PROVIDE #3 STANDEES AT 48 INCHES O.C. TO SUPPORT TOP REINFORCEMENT IN BASE SLAB, AND #3 "U" OR "Z" SHAPED SPACERS AT 72 INCHES O.C. EACH WAY IN WALLS WITH TWO CURTAINS OF REINFORCEMENT.
11. DOWELS, PIPES AND OTHER INSTALLED MATERIALS AND ACCESSORIES SHALL BE HELD SECURELY IN POSITION DURING CONCRETE PLACEMENT. ALL REINFORCEMENT IS TO BE PLACED AND SECURED PRIOR TO PLACEMENT OF CONCRETE, UNLESS OTHERWISE STATED. DOWELS SHALL BE IN PLACE, NOT INSERTED, WHILE CONCRETE IS IN A PLASTIC STATE.
12. REINFORCING BARS AND ACCESSORIES SHALL NOT BE IN CONTACT WITH ANY PIPE, PIPE FLANGE OR METAL PART EMBEDDED IN CONCRETE. PROVIDE 2 INCH CLEARANCE IN ALL CASES UNLESS OTHERWISE INDICATED. NO EMBEDDED ITEM SHALL BE SUSPENDED FROM, SUPPORTED BY, OR BRACED IN PLACE FROM STRUCTURAL REINFORCEMENT.
13. LOCATE CONSTRUCTION JOINTS WHERE SHOWN ON THE DRAWINGS OR AS AUTHORIZED BY ENGINEER. SLABS, JOISTS AND BEAMS SHALL NOT HAVE JOINTS IN A HORIZONTAL PLANE EXCEPT WHERE DETAILED ON DRAWINGS.
14. THOROUGHLY CLEAN ALL KEYWAYS AND CONSTRUCTION JOINTS PRIOR TO PLACING CONCRETE IN ADJACENT POUR.
15. PVC WATERSTOP
A. PROTECT ALL PROJECTING WATERSTOPS FROM DAMAGE AND EXPOSURE DURING CONSTRUCTION.
B. FIRMLY TIE ALL ENDS AND EDGES OF WATERSTOPS AT 18 INCH MAXIMUM TO PREVENT MOVEMENT DURING CONCRETE PLACEMENT.
16. BEGIN SPACING OF BARS WHICH PARALLEL CONSTRUCTION AND EXPANSION JOINTS 2 INCHES CLEAR EACH SIDE OF JOINT. UNLESS OTHERWISE SHOWN, PLACE (2) - #5 (1 EACH FACE) WITH 24 INCH PROJECTIONS AROUND ALL OPENINGS IN CONCRETE WALLS AND SLABS.
17. PROVIDE AN ADDITIONAL 500 LINEAL FEET EACH OF #4 AND #5 REINFORCING BARS FOR USE AS DIRECTED DURING CONSTRUCTION.
18. CHAMFER ALL EXPOSED CONCRETE EDGES 0.75 INCHES, UNLESS OTHERWISE INDICATED.

SLAB-ON-GRADE CONCRETE

1. SLAB ON GRADE CONTRACTION JOINTS ARE DENOTED "CJ" ON DRAWINGS. SLAB ON GRADE CONSTRUCTION JOINTS ARE DENOTED "CONSTR JT". (SLAB ON GRADE CONTRACTION JOINTS ARE TO BE SPACED NO GREATER THAN 12 FEET FOR 4 INCH THICK SLAB (18 FEET FOR 6 INCH THICK SLAB) IN ANY DIRECTION, UNLESS OTHERWISE INDICATED ON PLANS.)
2. AT CONTRACTOR'S OPTION, CONSTRUCTION JOINTS MAY BE SUBSTITUTED FOR CONTRACTION JOINTS.
3. LOCATE REINFORCEMENT 1.5 INCHES FROM TOP OF SLAB.
PROVIDE 1 - #4 x 4 FEET PARALLEL TO EDGE OF SLAB OPPOSITE THE END OF ALL DISCONTINUED SLAB JOINTS, AND 1 - #4 x 4 FEET DIAGONAL BAR AT ALL REINTRANS CORNERS. PLACE BARS MID-DEPTH IN SLAB AND 2 INCHES CLEAR FROM EDGE OF CORNER.
5. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF DEPRESSED SLAB AREAS AND DRAINS. SLOPE SLAB TO DRAINS WHERE SHOWN.
A. SLOPE BOTTOM SURFACE OF SLABS AS NECESSARY TO MAINTAIN MINIMUM THICKNESS NOTED ON DRAWINGS FOR ALL SLABS WITH SLOPING TOP SURFACE OR DEPRESSION.
6. IN ORDER TO MINIMIZE CONCRETE SHRINKAGE CRACKING, PLACE CONCRETE SLABS IN AN ALTERNATING LANE OR CHECKERBOARD PATTERN. THE MAXIMUM LENGTH OF SLAB CAST IN ANY ONE CONTINUOUS POUR IS RECOMMENDED TO BE LESS THAN 100 FEET.
7. FINISH TOLERANCE OF ALL SLABS SHALL BE IN ACCORDANCE WITH ACI 301, TYPE A.

PRECAST PRESTRESSED CONCRETE

1. DESIGN AND FABRICATION OF PRECAST PRESTRESSED CONCRETE MEMBERS SHALL CONFORM TO ACI 318 AND PRESTRESSED CONCRETE INSTITUTE MKL-316.
2. MATERIAL
A. CONCRETE MEMBERS
i) HOLLOWCORE PLANK Fc = 5,000 PSI
ii) PRECAST BEAM Fc = 6,000 PSI
iii) PRECAST COLUMN Fc = 6,000 PSI
B. PRESTRESSING STRANDS ASTM A416, GRADE 270
3. PRECAST PRESTRESSED CONCRETE MEMBERS SHALL BE DESIGNED AND REINFORCED BY THE MANUFACTURER TO SUPPORT ALL SUPERIMPOSED DEAD LOADS AND THE DESIGN LOADS NOTED ON PLANS.
4. DEVIATIONS FROM MEMBER CROSS SECTION, LAYOUT AND CONNECTION DETAILS SHOWN ON THE DRAWINGS WILL BE PERMITTED ONLY AS AUTHORIZED BY ENGINEER.

CONCRETE TOPPING

1. CONCRETE TOPPING SHALL BE REINFORCED WITH A SYNTHETIC FIBER MEETING THE FOLLOWING REQUIREMENTS:
A. FIBRILLATED POLYPROPYLENE FIBERS ENGINEERED AND DESIGNED FOR USE IN CONCRETE, COMPLYING WITH ASTM C116, TYPE III.
B. LENGTH/FIBER LENGTH SHALL BE A MINIMUM OF 1.5 INCHES.
C. DOSAGE: FIBERS SHALL BE USED AT A MINIMUM DOSAGE RATE OF 1.5 POUNDS PER CUBIC YARD OF CONCRETE.

MASONRY

1. MASONRY CONSTRUCTION SHALL CONFORM TO IBC.
2. MATERIALS
A. CONCRETE MASONRY UNITS ASTM C90, GRADE N, TYPE I
i) SPECIFIED COMPRESSIVE STRENGTH fm = 1,500 PSI
ii) NORMAL WEIGHT AGGREGATE ASTM C33
B. REINFORCING BARS ASTM A615, GRADE 60
C. MORTAR ASTM C270, TYPE S
D. GROUT FOR MASONRY BOND BEAMS, LINTELS, VERTICAL WALL CORES AND JAMBS SHALL CONFORM TO ASTM C476, AND HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 2000 PSI.
3. PROVIDE TEMPORARY BRACING FOR ALL MASONRY WALLS AS NECESSARY DURING CONSTRUCTION.
REINFORCE ALL MASONRY WALLS WITH 9-GAGE, LADDER TYPE HORIZONTAL JOINT REINFORCEMENT AT 16 INCHES MAXIMUM. MANUFACTURER'S STANDARD PREFABRICATED SECTION SHALL BE USED AT ALL CORNERS AND INTERSECTIONS UNLESS OTHERWISE DETAILED. LAP SIDE ROBS OF JOINT REINFORCEMENT 6 INCHES MINIMUM AT SPICES.
EXCEPT WHERE OFFSETS WITH SLIP JOINTS ARE SHOWN, MASONRY CONTROL JOINTS SHALL BE A CONTINUOUS VERTICAL LINE FROM TOP OF FOUNDATION TO TOP OF MASONRY WALL, UNLESS SHOWN ON ELEVATIONS, SPACING OF CONTROL JOINTS SHALL BE TWO AND ONE HALF (2.5) TIMES THE WALL HEIGHT, BUT NOT GREATER THAN 50 FEET AT INTERIOR WALLS AND 24 FEET MAXIMUM AT EXTERIOR WALLS (U.N.O.). DISCONTINUE JOINT REINFORCEMENT AT MASONRY CONTROL JOINTS.
4. REINFORCE ALL BOND BEAMS AND JAMB BLOCKS WITH 2 - #5, UNLESS OTHERWISE NOTED.
5. LAP REINFORCEMENT FOR MASONRY BOND BEAMS AND VERTICAL WALL CORES AS NOTED BELOW. USE TYPE I LAP LENGTHS, UNLESS NOTED OTHERWISE ON PLANS.

BAR SIZE	REGULAR BARS	TOP BARS
#3	1'- 3"	2'- 3"
#4	1'- 8"	3'- 0"
#5	2'- 1"	3'- 9"
#6	2'- 6"	4'- 6"
#7	2'- 11"	5'- 3"
#8	3'- 4"	6'- 0"

8. PROVIDE DOWEL BARS FROM FOUNDATION FOR ALL VERTICAL WALL REINFORCEMENT. EMBED DOWEL BARS 40 BAR DIAMETERS IN FOUNDATION WALLS OR FURNISH WITH END HOOKS WHERE INDICATED. DOWEL SIZE SHALL MATCH WALL REINFORCEMENT.
9. SECURE REINFORCEMENT AGAINST DISPLACEMENT PRIOR TO GROUTING BY WIRE POSITIONERS OR OTHER SUITABLE DEVICES AT INTERVALS NOT EXCEEDING 200 BAR DIAMETERS NOR 10 FEET.
10. ELEVATION CHANGES IN BOND BEAMS NOT OTHERWISE INDICATED TO SLOPE SHALL BE ACCOMPLISHED BY STEPPING BOND BEAMS IN WALL WITH EACH STEP LAPPED A MINIMUM OF 5'-4"
11. GALVANIZE LOOSE STEEL LINTELS LOCATED IN EXTERIOR WALLS.

STRUCTURAL STEEL

1. STRUCTURAL STEEL CONSTRUCTION SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
2. MATERIAL
A. STRUCTURAL STEEL W-SHAPES ASTM A992, GRADE 50
B. STRUCTURAL STEEL CHANNELS, ANGLES, PLATES, AND MISC. ASTM A36
C. STRUCTURAL TUBING ASTM A500, GRADE B
D. STEEL PIPE ASTM A53, TYPE E OR S, GRADE B
E. HIGH-STRENGTH BOLTS ASTM A325
F. ANCHOR BOLTS ASTM F1554, GRADE 36
G. HEAD-UP ANCHOR STUDS ASTM A108
3. ALL STRUCTURAL STEEL BOLTED CONNECTIONS SHALL BE 0.75 INCH DIAMETER A325-N BOLTS WITH STANDARD HOLES, UNLESS OTHERWISE NOTED.
4. ALL WELDING SHALL CONFORM TO AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE - STEEL IAWD D1.1, AND SHALL BE PERFORMED BY WELDERS QUALIFIED BY THE APPROPRIATE AWS TEST FOR THE WELDING PERFORMED.
5. ALL STRUCTURAL STEEL DESIGNATED (A53) ON DRAWINGS SHALL CONFORM TO AISI SPECIFICATIONS FOR ARCHITECTURALLY EXPOSED STRUCTURAL STEEL.
6. ALL WELDS SHALL BE MADE WITH E-70 ELECTRODES.

PLYWOOD / GYPBOARD SHEATHING

1. ALL PLYWOOD CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE AMERICAN PLYWOOD ASSOCIATION (APA) SPECIFICATIONS AND IBC.
2. MATERIALS
A. PLYWOOD SHEATHING APA RATED SHEATHING
3. ROOF PANEL SHEATHING
A. SUITABLE EDGE SUPPORT FOR ROOF PANEL SHEATHING SHALL BE PROVIDED BY USE OF PANEL CLIPS OR BLOCKING BETWEEN FRAMING.
B. SECURE ROOF PANEL SHEATHING AS INDICATED IN SHEATHING SCHEDULE. (UNLESS OTHERWISE NOTED SECURE ROOF PANEL SHEATHING WITH 80 COMMON NAILS AT 6 INCHES O.C. AT SUPPORTED PANEL EDGES AND 6 INCHES O.C. AT INTERMEDIATE SUPPORTS.)
4. INSTALL ALL PLYWOOD SHEATHING WITH THE LONG DIMENSION OF THE PANEL ACROSS SUPPORTS AND WITH PANEL CONTINUOUS OVER TWO OR MORE SPANS. STAGGER PANEL END JOINTS, ALLOW 1/8 INCH SPACING AT PANEL ENDS AND EDGES UNLESS OTHERWISE RECOMMENDED BY THE SHEATHING MANUFACTURER.
5. ALL NAILING SHALL BE CAREFULLY DRIVEN AND NOT OVERDRIVEN. THE USE OF STAPLES IS PROHIBITED FROM USE.

COLD-FORMED METAL FRAMING

1. COLD-FORMED STEEL FRAMING CONSTRUCTION SHALL CONFORM TO THE AMERICAN IRON AND STEEL INSTITUTE'S "STANDARD FOR COLD-FORMED STEEL FRAMING - GENERAL PROVISIONS".
2. MATERIALS
A. STEEL SHEET ASTM A1003, STRUCTURAL GRADE, METALLIC COATED.

CONSTRUCTION DOCUMENTS 100%

No	REVISION	DATE

VA FORM 08-6231



Alexandria
525 Broadway Street
Alexandria, MN 56308
phone 320.759.9330
facsimile 320.759.9362
www.jlgarchitects.com
copyright © 2014

STANDARD:
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATIONS, OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A QUALIFIED PROFESSIONAL ENGINEER UNDER THE CHARTER OF THE STATE OF MINNESOTA.

Brian L. Aschle, P.E.
DATE: 04.01.15

BRIAN L. ASCHLE, P.E.
RES. NO.

DRAWING TITLE
STRUCTURAL STANDARD NOTES

PROJECT TITLE
CONSTRUCT NEW IT CENTER
FOR HEALTHCARE
TECHNOLOGY
MANAGEMENT EXPANSION

DATE
04.01.15

PROJECT NO.
656-14246

BUILDING No.
BA

DRAWN
AW

CAD FILE
XXX

LOCATION
VIA MEDICAL CENTER
ST. CLOUD, MN 56303

DRAWING NO.
S010
REV. 2 OF XX



SPECIAL INSPECTION & STRUCTURAL TESTING - GENERAL NOTES

1. THE FOLLOWING NOTES AND TABLES SHALL CONSTITUTE THE STATEMENT OF SPECIAL INSPECTIONS REQUIRED IN ACCORDANCE WITH INTERNATIONAL BUILDING CODE (IBC) SECTION 1705. THE LISTED INSPECTION REQUIREMENTS REPRESENT THE MINIMUM ACCEPTABLE LEVEL OF INSPECTION, WHERE THE BUILDING CODE OR LOCAL JURISDICTION REQUIRES A GREATER LEVEL OF INSPECTION, THOSE REQUIREMENTS TAKE PRECEDENCE.
2. OBTAIN "STRUCTURAL TESTING AND SPECIAL INSPECTION – PROGRAM SUMMARY SCHEDULE" FROM STRUCTURAL ENGINEER-OF-RECORD.
3. SPECIAL INSPECTOR AND INDEPENDENT TESTING AGENCY FOR SPECIAL INSPECTION AND TESTING SERVICES ARE THE RESPONSIBILITY AS IDENTIFIED IN TABLES.
4. DEFINITIONS:
A. "SER" DENOTES STRUCTURAL ENGINEER-OF-RECORD.
B. "APPROVED AGENCY" AS DEFINED BY IBC 2009, AN ESTABLISHED AND RECOGNIZED AGENCY REGULARLY ENGAGED IN CONDUCTING TESTS OR FURNISHING INSPECTION SERVICES.
C. "FABRICATED ITEMS" AS DEFINED BY IBC 2009, STRUCTURAL, LOAD-BEARING OR LATERAL LOAD-RESISTING ASSEMBLIES CONSISTING OF MATERIALS ASSEMBLED PRIOR TO INSTALLATION IN A BUILDING OR STRUCTURE, OR SUBJECTED TO OPERATIONS SUCH AS HEAT TREATMENT, THERMAL CUTTING, COLD WORKING OR REFORMING AFTER MANUFACTURE AND PRIOR TO INSTALLATION IN A BUILDING OR STRUCTURE. MATERIALS PRODUCED IN ACCORDANCE WITH STANDARD SPECIFICATIONS REFERENCED BY IBC 2009, SUCH AS ROLLED STRUCTURAL STEEL, SHAPES, STEEL, REINFORCING BARS, MASONRY UNITS, AND WOOD STRUCTURAL PANELS OR IN ACCORDANCE WITH A STANDARD, LISTED IN IBC 2009 CHAPTER 35, WHICH PROVIDES REQUIREMENTS FOR QUALITY CONTROL DONE UNDER THE SUPERVISION OF A THIRD-PARTY QUALITY CONTROL AGENCY SHALL NOT BE CONSIDERED "FABRICATED ITEMS".
5. REFERENCES:
A. ASTM E829 STANDARD SPECIFICATION FOR AGENCIES ENGAGED IN THE TESTING AND/OR INSPECTION OF MATERIALS USED IN CONSTRUCTION.
B. ASTM E43 STANDARD PRACTICE FOR AGENCIES PERFORMING NONDESTRUCTIVE TESTING.
C. ASTM C1077 PRACTICE FOR LABORATORIES TESTING CONCRETE AND CONCRETE AGGREGATES FOR USE IN CONSTRUCTION AND CRITERIA FOR LABORATORY EVALUATION.
D. ASTM C1093 PRACTICE FOR ACCREDITATION OF TESTING AGENCIES FOR UNIT MASONRY.
E. ASTM D1740 PRACTICE FOR MINIMUM REQUIREMENTS FOR AGENCIES ENGAGED IN THE TESTING AND/OR INSPECTION OF SOIL AND ROCK AS USED IN ENGINEERING DESIGN AND CONSTRUCTION.
F. LOCAL BUILDING CODE.
G. SEE SPECIFIC REFERENCES IN TABLES BELOW.
6. QUALIFICATIONS:
A. TESTING AGENCY (TA) – THE TESTING AGENCY SHALL BE AN APPROVED INDEPENDENT TESTING AGENCY ACCEPTABLE TO THE OWNER, ARCHITECT, SER, AND AS NOTED BELOW.
I. AN APPROVED AGENCY SHALL BE OBJECTIVE, COMPETENT AND INDEPENDENT FROM THE CONTRACTOR RESPONSIBLE FOR THE WORK BEING INSPECTED. THE AGENCY SHALL ALSO DISCLOSE POSSIBLE CONFLICTS OF INTEREST SO THAT OBJECTIVITY CAN BE CONFIRMED.
II. AUTHORIZED TO OPERATE IN THE STATE IN WHICH THE PROJECT IS LOCATED AND EXPERIENCED WITH THE REQUIREMENTS AND TESTING METHODS SPECIFIED IN TABLES BELOW.
III. MEETING APPLICABLE REQUIREMENTS OF REFERENCES ABOVE.
IV. TESTING EQUIPMENT SHALL BE CALIBRATED AT REASONABLE INTERVALS BY DEVICES OF ACCURACY TRACEABLE TO EITHER THE NATIONAL BUREAU OF STANDARDS, OR TO ACCEPTED VALUES OF NATURAL PHYSICAL CONSTANTS.
B. SPECIAL INSPECTOR (SI) – THE SPECIAL INSPECTOR SHALL BE UNDER THE DIRECT SUPERVISION OF A REGISTERED CIVIL/STRUCTURAL ENGINEER, EXPERIENCED WITH THE TYPE OF WORK REQUIRING STRUCTURAL TESTING AND SPECIAL INSPECTION. THE SPECIAL INSPECTOR SHALL BE A QUALIFIED PERSON WHO SHALL DEMONSTRATE COMPETENCE, TO THE SATISFACTION OF THE BUILDING OFFICIAL AND STRUCTURAL ENGINEER-OF-RECORD.
C. ACCORDING TO IBC 2009 SECTION 1704.1, THE SER IS PERMITTED TO ACT AS THE APPROVED AGENCY AND THEIR PERSONNEL ARE PERMITTED TO ACT AS THE SPECIAL INSPECTOR FOR THE WORK. DESIGNED BY THEM, PROVIDED THOSE PERSONNEL MEET THE QUALIFICATION REQUIREMENTS.
7. REPORTS:
A. TESTING AGENCY AND/OR SPECIAL INSPECTORS SHALL SUBMIT REPORTS IN ACCORDANCE WITH THE STRUCTURAL TESTING AND SPECIAL INSPECTION SUMMARY SCHEDULE AND SHALL CONDUCT AND INTERPRET TESTS AND INSPECTIONS AND STATE IN EACH REPORT WHETHER:
I. TEST SPECIMENS AND OBSERVATIONS COMPLY WITH APPROVED CONSTRUCTION DOCUMENTS, AND SPECIFICALLY STATE ANY DEVIATIONS.
II. RECORD TYPES AND LOCATIONS OF DEFECTS FOUND IN WORK.
III. RECORD WORK REQUIRED AND PERFORMED, TO CORRECT DEFICIENCIES.
B. REPORTS FOR STRUCTURAL TESTING AND SPECIAL INSPECTION SHALL BE SUBMITTED IN TIMELY MANNER TO THE CONTRACTOR, BUILDING OFFICIAL, SER AND ARCHITECT OF RECORD.
C. SUBMIT REPORTS FOR ONGOING WORK, TO PROVIDE THE INFORMATION NOTED BELOW:
DATE ISSUED
PROJECT TITLE AND NUMBER
FIRM NAME AND ADDRESS
NAME AND SIGNATURE OF TESTOR AND/OR INSPECTOR
DATE AND TIME OF MATERIAL SAMPLING
DATE OF TEST OR INSPECTION
IDENTIFICATION OF PRODUCT AND SPECIFICATION SECTION
LOCATION IN PROJECT, INCLUDING ELEVATIONS, GRID LOCATION AND DETAIL
TYPE OF TEST AND/OR INSPECTIONS
RESULTS OF TESTS AND/OR INSPECTIONS, AND INTERPRETATION OF SAME
OBSERVATIONS REGARDING COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS OR DEVIATIONS THERE FROM
II. SUBMIT A FINAL SIGNED REPORT STATING WHETHER THE WORK REQUIRING SPECIAL INSPECTION WAS, TO THE BEST OF THE INSPECTOR'S KNOWLEDGE, IN CONFORMANCE WITH THE APPROVED PLANS, SPECIFICATIONS AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THEY ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND SER PRIOR TO THE COMPLETION OF THAT PHASE OF WORK.
D. REPORTS FOR CONVENTIONAL TESTING AND INSPECTION SHALL BE SUBMITTED IN A TIMELY MANNER TO THE CONTRACTOR AND THE ARCHITECT OF RECORD.
E. REFER TO APPROVED CONSTRUCTION SPECIFICATIONS FOR CONVENTIONAL TESTING AND INSPECTION REQUIREMENTS.
F. RETESTING OF MATERIALS FAILING TO COMPLY WITH SPECIFIED REQUIREMENTS SHALL BE DONE AT CONTRACTOR'S EXPENSE.
G. EXEMPTIONS: SPECIAL INSPECTION IS NOT REQUIRED FOR THE FOLLOWING:
A. WORK OF A MINOR NATURE OR AS WARRANTED BY CONDITIONS IN THE JURISDICTION AS APPROVED BY THE BUILDING OFFICIAL.
B. BUILDING COMPONENTS UNLESS THE PRACTICE OF PROFESSIONAL ENGINEER OR ARCHITECTURE AS DEFINED BY APPLICABLE STATE STATUTES AND REGULATIONS GOVERNING THE PROFESSIONAL REGISTRATION AND CERTIFICATION OF ENGINEERS OR ARCHITECTS.
C. UNLESS OTHERWISE REQUIRED BY BUILDING OFFICIAL, GROUP U OCCUPANCIES THAT ARE ACCESSORY TO A RESIDENTIAL OCCUPANCY INCLUDING, BUT NOT LIMITED TO, THOSE LISTED IN IBC 2009 SECTION 312.1.

SPECIAL INSPECTION - CAST-IN-PLACE CONCRETE IBC 2009 SECTION 1704.4

1. EXEMPTIONS: SPECIAL INSPECTION IS NOT REQUIRED FOR THE FOLLOWING ITEMS:
A. ISOLATED SPREAD FOOTINGS OF BUILDINGS THREE STORES OR LESS ABOVE GRADE PLANE THAT ARE FULLY SUPPORTED ON EARTH OR ROCK.
B. CONTINUOUS CONCRETE FOOTINGS SUPPORTING WALLS OF BUILDINGS THREE STORES OR LESS ABOVE GRADE PLANE THAT ARE FULLY SUPPORTED ON EARTH OR ROCK, WHERE THE FOOTINGS SUPPORT WALLS OF LIGHT FRAME CONSTRUCTION, THE FOOTINGS ARE DESIGNED IN ACCORDANCE WITH IBC 2009 TABLE 1809.7, OR THE FOOTING STRUCTURAL DESIGN IS BASED ON CONCRETE COMPRESSIVE STRENGTH NO GREATER THAN 2500 PSI.
C. NON-STRUCTURAL CONCRETE SLABS ON-GRADE, INCLUDING PRESTRESSED SLABS ON GRADE WHEN EFFECTIVE PRESTRESS IN CONCRETE IS LESS THAN 150 PSI.
D. CONCRETE FOUNDATION WALLS CONSTRUCTED IN ACCORDANCE WITH IBC 2009 TABLE 1807.1.6.2.
E. CONCRETE PATIOS, DRIVEWAYS AND SIDEWALKS ON GRADE.
2. QUALIFICATIONS:
A. SPECIAL INSPECTOR – TECHNICAL
I. TECHNICAL I: A/C CERTIFIED GRADE II INSPECTOR. INSPECTOR SHALL BE EMPLOYED BY A TESTING LABORATORY, UNDER THE DIRECT SUPERVISION OF A TECHNICAL III.
II. TECHNICAL II: A/C CERTIFIED GRADE II INSPECTOR. INSPECTOR SHALL BE EMPLOYED BY A TESTING LABORATORY, UNDER THE DIRECT SUPERVISION OF A TECHNICAL III.
III. TECHNICAL III: A CIVIL/STRUCTURAL ENGINEER REGULARLY ENGAGED IN THIS TYPE OF WORK, WITH A MINIMUM OF 4 YEARS EXPERIENCE, LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED AND IS AN EMPLOYEE OF A QUALIFIED AND APPROVED TESTING LABORATORY. THE LICENSED ENGINEER SHALL REVIEW AND APPROVE ALL REPORTS.
B. TESTING LABORATORY SHALL HAVE C.C.R.L. CERTIFICATION AT THE NATIONAL BUREAU OF STANDARDS.
C. SPECIAL INSPECTOR – STRUCTURAL
I. STRUCTURAL I: GRADUATE CIVIL/STRUCTURAL ENGINEER, OR OTHER PERSONNEL ACCEPTABLE TO THE SER, WITH EXPERIENCE IN THE DESIGN OF STRUCTURAL SYSTEMS OF THIS TYPE. INSPECTIONS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A STRUCTURAL II.
II. STRUCTURAL II: CIVIL/STRUCTURAL ENGINEER REGULARLY ENGAGED IN THE DESIGN OF STRUCTURAL SYSTEMS OF THIS TYPE, LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED. THE LICENSED ENGINEER SHALL REVIEW AND APPROVE ALL INSPECTION REPORTS.
STRUCTURAL INSPECTOR – STRUCTURAL MAY BE BY INDEPENDENT TESTING AGENCY, SER, OR SER REPRESENTATIVE WITH DIRECT SUPERVISION BY SER.

SPECIAL INSPECTION - CAST-IN-PLACE CONCRETE IBC 2009 SECTION 1704.4

	DESCRIPTION	PERFORMED BY	FREQUENCY	OWNER EMPLOY	CONTRACTOR EMPLOY	COMMENTS
1.	OBSERVE ERECTED FORM WORK, SHORING AND BRACING TO ENSURE THAT WORK IS IN ACCORDANCE WITH FORM WORK DESIGN AND SHOP DRAWINGS. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED. PER ACI 318 SECTION 6.1.1.	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
2.	VERIFICATION OF IN-SITU CONCRETE STRENGTH, PRIOR TO POST-TENSIONING AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS PER ACI 318 SECTION 6.2.	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	LAB CURED SPECIMENS ACCEPTABLE, SEE TECHNICAL SPECIFICATION FOR QUALITY REQUIREMENTS
3.	INSPECTION REINFORCING STEEL, INCLUDING PRE-STRESSING TENDONS, AND PLACEMENT PER ACI 318 SECTION 3.5, 7.1-7.7	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
a.	VERIFY REINFORCING BAR GRADE	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
b.	INSPECTION OF PLACEMENT OF REINFORCING STEEL AND PRESTRESSING TENDONS FOR SIZE, SPACING, CLEARANCES	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
c.	VERIFY PLACED REINFORCING STEEL IS FREE OF DIRT, EXCESSIVE RUST AND DAMAGE	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
d.	VERIFY PLACED REINFORCING STEEL IS ADEQUATELY TIED, CHAIRED AND SUPPORTED TO PREVENT DISPLACEMENT DURING CONCRETE PLACEMENT	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
e.	VERIFY BAR LAPS FOR PROPER LENGTH AND STAGGER, AND BAR BENDS FOR MINIMUM DIAMETER, SLOPE AND LENGTH	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
4.	INSPECTION OF REINFORCING STEEL WELDING (SEE STRUCTURAL STEEL WELDING NOTES)	SEE STRUCTURAL STEEL FRAMING	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	
5.	INSPECT ANCHOR BOLTS INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT PER ACI 318 SECTION 3.8.6, 8.1.3, AND 21.2.8	SPECIAL INSPECTOR - STRUCTURAL I	CONTINUOUS		X	
6.	VERIFY USE OF REQUIRED DESIGN MIX	SPECIAL INSPECTION - TECHNICAL I	PERIODIC		X	SEE TECHNICAL SPECIFICATION FOR FIELD QUALITY AND LAB REQUIREMENTS
7.	FIELD QUALITY CONTROL OF FRESH CONCRETE DURING PLACEMENT	SPECIAL INSPECTION - TECHNICAL I	PER TECHNICAL SPEC.		X	SEE TECHNICAL SPECIFICATION FOR FIELD QUALITY REQUIREMENTS
8.	INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER INSTALLATION PER ACI 318 SECTION 5.9 AND 5.10	SPECIAL INSPECTOR - STRUCTURAL I	CONTINUOUS		X	
9.	OBSERVE PROTECTION AND CURING OF FRESH CONCRETE	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
10.	INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES PER ACI 318 SECTION 11.7.1-11.7.3	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
11.	INSPECTION OF PRESTRESSED CONCRETE APPLICATION OF PRESTRESSING FORCES PER ACI 318 SECTION 18.20	NOT APPLICABLE	CONTINUOUS	NOT APPLICABLE	NOT APPLICABLE	
12.	INSPECTION OF PRESTRESSED CONCRETE GROUTING OF BONDED TENDONS IN SEISMIC-FORCE-RESISTING SYSTEM PER ACI 318 SECTION 18.38.4	NOT APPLICABLE	CONTINUOUS	NOT APPLICABLE	NOT APPLICABLE	
13.	POST-INSTALLED CONCRETE MECHANICAL FASTENERS: VISUALLY INSPECT SPECIFIED SIZE, SPACING, HOLE PREPARATION, EMBEDMENT, AND LOCATION; PER ACI 318 SECTION 3.8.6, 8.1.3 AND 21.2.8	SPECIAL INSPECTION - TECHNICAL I	PERIODIC		X	

SPECIAL INSPECTION – STRUCTURAL STEEL FRAMING – IBC 2009 SECTION 1704.3

1. DEFINITIONS
A. ASNT: THE AMERICAN SOCIETY FOR NON-DESTRUCTIVE TESTING
B. NDE: NON-DESTRUCTIVE EVALUATION
C. AWS/CWI: AMERICAN WELDING SOCIETY / CERTIFIED ASSOCIATE WELD INSPECTOR
D. AWS/CWI: AMERICAN WELDING SOCIETY / CERTIFIED WELD INSPECTOR
2. QUALIFICATIONS:
A. SPECIAL INSPECTOR – GENERAL
I. THE BASIS FOR WELDING INSPECTION QUALIFICATIONS SHALL BE AWS D1.1.
B. SPECIAL INSPECTOR – TECHNICAL
I. SHALL BE EMPLOYED BY A TESTING AGENCY AND SHALL BE SUPERVISED BY AN AWS/CWI WITH A MINIMUM OF 10 YEARS EXPERIENCE OR AN ASNT LEVEL II WITH A MINIMUM OF 10 YEARS EXPERIENCE. THESE INDIVIDUALS SHALL SATISFY THE FOLLOWING REQUIREMENTS:
TECHNICAL I: NON-DESTRUCTIVE TESTING TECHNICIAN ASNT TC-1A LEVEL I, AND/OR AWS CERTIFIED ASSOCIATE WELD INSPECTOR (CAWI).
TECHNICAL II: NON-DESTRUCTIVE TESTING TECHNICIAN ASNT TC-1A LEVEL II, (NDE TECHNICIAN II), AWS/CWI, WITH MINIMUM 3 YEARS EXPERIENCE, OR AN AWS/CWI.
TECHNICAL III: ASNT LEVEL III WITH A MINIMUM OF 10 YEARS EXPERIENCE OR AN AWS/CWI WITH A MINIMUM OF 10 YEARS EXPERIENCE.
C. SPECIAL INSPECTOR – STRUCTURAL
I. STRUCTURAL I: GRADUATE CIVIL/STRUCTURAL ENGINEER, OR OTHER PERSONNEL ACCEPTABLE TO THE SER, WITH EXPERIENCE IN THE DESIGN OF STRUCTURAL SYSTEMS OF THIS TYPE. INSPECTIONS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A STRUCTURAL II.
II. STRUCTURAL II: CIVIL/STRUCTURAL ENGINEER REGULARLY ENGAGED IN THE DESIGN OF STRUCTURAL SYSTEMS OF THIS TYPE, LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED. THE LICENSED ENGINEER SHALL REVIEW AND APPROVE ALL INSPECTION REPORTS.
III. STRUCTURAL INSPECTOR – STRUCTURAL MAY BE BY INDEPENDENT TESTING AGENCY, SER, OR SER REPRESENTATIVE WITH DIRECT SUPERVISION BY SER.
3. FABRICATION:
A. APPROVED FABRICATORS: POSSES PRIOR APPROVAL IN ACCORDANCE WITH IBC 2009 SECTION 1704.2.2.
I. UPON COMPLETION OF FABRICATION, THE STRUCTURAL STEEL APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE BUILDING OFFICIAL STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH APPROVED CONSTRUCTION DOCUMENTS, APPROVED SHOP DRAWINGS AND DESIGN AND AISC STANDARD SPECIFICATION.
B. ALL OTHER FABRICATORS
I. FABRICATOR TO ENGAGE A QUALIFIED INDEPENDENT SPECIAL INSPECTOR TO PERFORM INSPECTIONS INDICATED BELOW. SPECIAL INSPECTOR TO PREPARE REPORT AND SUBMIT TO BUILDING OFFICIAL. PAYMENT FOR THESE SERVICES WILL BE MADE BY THE FABRICATOR.
II. THE SPECIAL INSPECTOR SHALL VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. THE SPECIAL INSPECTOR SHALL REVIEW THE PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK. CONDUCTED BY SPECIAL INSPECTOR – STRUCTURAL I.
C. EXEMPTION: SPECIAL INSPECTION OF THE STRUCTURAL STEEL FABRICATION PROCESS SHALL NOT BE REQUIRED WHERE THE FABRICATOR DOES NOT PERFORM ANY WELDING, THERMAL CUTTING OR HEATING OPERATION OF ANY KIND AS PART OF THE FABRICATION PROCESS. IN SUCH CASES, THE FABRICATOR SHALL BE REQUIRED TO SUBMIT A DETAILED PROCEDURE FOR MATERIAL CONTROL THAT DEMONSTRATES THE FABRICATOR'S ABILITY TO MAINTAIN SUITABLE RECORDS AND PROCEDURES SUCH THAT, AT ANY TIME DURING THE FABRICATION PROCESS, THE MATERIAL SPECIFICATION, GRADE AND MILL TEST REPORTS FOR THE MAIN STRESS-CARRYING ELEMENTS ARE CAPABLE OF BEING DETERMINED.

	DESCRIPTION	PERFORMED BY	FREQUENCY	OWNER EMPLOY	CONTRACTOR EMPLOY	COMMENTS
1.	HIGH STRENGTH BOLTING (FIELD INSTALLED)					
a.	VERIFY MATERIAL CONFORMS TO SPECIFIED ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS. REFER TO ASTM MATERIAL SPECIFICATIONS AND AISC 360, SECTN. A3.3	SPECIAL INSPECTION - TECHNICAL II	PERIODIC		X	
b.	VERIFY MANUFACTURER'S CERTIFICATE OF COMPLIANCE FOR HIGH-STRENGTH BOLTS, NUTS AND WASHERS	SPECIAL INSPECTION - TECHNICAL II	PERIODIC		X	
c.	VISUALLY INSPECT MATING SURFACES AND BOLT TYPE FOR ALL SLIP-CRITICAL BOLTED CONNECTIONS FOR GENERAL CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS PRIOR TO BOLTING	SPECIAL INSPECTION - TECHNICAL II	PERIODIC		X	
d.	VERIFY THAT THE REQUIREMENTS FOR BOLTS, NUTS, WASHERS, PAINT AND INSTALLATION/TIGHTENING STANDARDS ARE MET	SPECIAL INSPECTION - TECHNICAL II	PERIODIC		X	
e.	OBSERVE CALIBRATION PROCEDURES ARE REQUIRED BY THE INSTALLATION METHOD OR IN THE APPROVED CONSTRUCTION DOCUMENTS	SPECIAL INSPECTION - TECHNICAL II	CONTINUOUS		X	
f.	SLIP CRITICAL BOLTS AND TENSION BOLTS					
i.	VERIFY THAT SELECTED PROCEDURE IS USED TO TIGHTEN BOLTS	SPECIAL INSPECTION - TECHNICAL II	CONTINUOUS		X	NOT APPLICABLE
ii.	MONITOR BOLT INSTALLATION WHEN THE CALIBRATED WRENCH METHOD OR TURN-OF-THE-NUT METHOD WITHOUT MATCH MARKING IS USED PER AISC 360 SECTION M2.5	SPECIAL INSPECTION - TECHNICAL II	CONTINUOUS		X	NOT APPLICABLE
iii.	MONITOR BOLT INSTALLATION IF THE TURN-OF-THE-NUT METHOD WITH MATCH MARKING, DIRECT TENSION INDICATOR, OR "TWIST OFF BOLT" METHODS ARE USED PER AISC 360 SECTION M2.5. VISUALLY VERIFY TIGHTENING OF ALL BOLTS	SPECIAL INSPECTION - TECHNICAL II	PERIODIC		X	NOT APPLICABLE
iv.	VISUALLY INSPECT TO VERIFY ALL PILES OF CONNECTED ELEMENTS HAVE BEEN BROUGHT INTO CONTACT, AT 100% OF CONNECTIONS	SPECIAL INSPECTION - TECHNICAL II	PERIODIC		X	NOT APPLICABLE
v.	VISUALLY INSPECT TO VERIFY ALL TIPS ARE REMOVED FROM "TWIST OFF BOLTS"	SPECIAL INSPECTION - TECHNICAL II	PERIODIC		X	NOT APPLICABLE
g.	BEARING-TYPE BOLTS (TYPE A OR X)					
i.	VISUALLY INSPECT TO VERIFY ALL PILES OF CONNECTED ELEMENTS HAVE BEEN BROUGHT INTO CONTACT	SPECIAL INSPECTION - TECHNICAL II	PERIODIC		X	
ii.	INSPECT BEARING-TYPE CONNECTIONS IN ACCORDANCE WITH AISC 360 SECTION M2.5	SPECIAL INSPECTION - TECHNICAL II			X	
h.	MISCELLANEOUS METALS, INSERTS AND PREFABRICATED COMPONENTS				X	
i.	WHERE INTEGRITY OF THE CONNECTIONS IMPACT LIFE SAFETY OR PERFORMANCE OF THE BUILDING STRUCTURE, PROVIDE TESTING AND INSPECTION AS FOR TYPICAL FIELD BOLT CONNECTIONS				X	
j.	HIGH STRENGTH BOLTING (SHOP INSTALLED)					
a.	FOR SHOP FABRICATED WORK, PERFORM TESTS REQUIRED FOR FIELD INSTALLATION SPECIFIED ABOVE. EXCEPT THAT BOLT TESTING MAY BE REDUCED OR DELETED, IF FABRICATION SHOP SATISFIES AISC QUALITY CERTIFICATION PROGRAM – CATEGORY I, OR MORE STRINGENT CRITERIA, OR IS APPROVED BY BUILDING OFFICIAL AND SER	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	FABRICATOR IS RESPONSIBLE FOR THESE SERVICES
3.	WELDING (GENERAL)					
a.	PRIOR TO START OF FABRICATION, DETERMINE IF FABRICATION SHOP MEETS THE CRITERIA FOR EXEMPTING SHOP WELDS FROM INSPECTION AND CONFIRM IN WRITING TO BUILDING OFFICIAL AND SER	SPECIAL INSPECTION - TECHNICAL II	PRIOR TO FABRICATION		X	
b.	PRIOR TO START OF FABRICATION, VERIFY QUALIFICATIONS OF ALL WELDERS AS AWS CERTIFIED		PRIOR TO FABRICATION		X	
c.	PRIOR TO START OF FABRICATION, VERIFY MANUFACTURER'S CERTIFICATE OF COMPLIANCE FOR WELD FILLER MATERIALS		PRIOR TO FABRICATION		X	
d.	PRIOR TO START OF FABRICATION, VERIFY PROPOSED WELDING PROCEDURES AND MATERIALS MEET AWS REQUIREMENTS		PRIOR TO FABRICATION		X	
e.	VERIFY ADEQUATE PREPARATION OF FAYING SURFACES		PERIODIC		X	
f.	VERIFY WELD FILLER MATERIAL IDENTIFICATION MARKINGS CONFORM TO AWS SPECIFICATION SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS		PERIODIC		X	AWC 360 SECTION A3.5 AND APPLICABLE AWS AS DOCUMENTS
g.	VERIFY PREHEAT AND INTERPASS TEMPERATURES OF STEEL, PROPER TECHNIQUE AND SEQUENCE OF WELDING, AND CLEANING AND NUMBER OF PASSES ARE PROVIDED AS REQUIRED		PERIODIC		X	
h.	EXCEPTION: SPECIAL INSPECTION NEED NOT BE CONTINUOUSLY PRESENT DURING WELDING OF THE FOLLOWING ITEMS, PROVIDED THE MATERIALS, WELDING PROCEDURES AND QUALIFICATIONS OF WELDERS ARE VERIFIED PRIOR TO THE START OF WORK. PERIODIC INSPECTIONS ARE MADE OF THE WORK IN PROGRESS, AND A VISUAL INSPECTION OF ALL WELDS IS MADE PRIOR TO COMPLETION OR PRIOR TO SHIPMENT OF SHOP WELDING: SINGLE-PASS FILLET WELDS NOT EXCEEDING 5/16 INCH IN SIZE; FLOOR AND ROOF DECK WELDING; STUD SHEAR CONNECTION WELDS; COLD-FORMED STEEL FRAMING (JOISTS AND STUDS); WELDING OF STAIRS AND RAILING SYSTEMS	SPECIAL INSPECTION - TECHNICAL II	PERIODIC		X	
a.	WELDING (FIELD)					
i.	FILLET WELDS					
j.	VISUALLY INSPECT 10% OF TOTAL WELD LENGTH OF SINGLE-PASS FILLET WELDS 5/16 INCH OR LESS DURING INSTALLATION FOR SIZE, LENGTH, AND QUALITY, PER AWS D1.1. VISUALLY INSPECT 100% OF COMPLETED WELDS PRIOR TO COMPLETION OF WORK	SPECIAL INSPECTION - TECHNICAL II	AS NOTED		X	
ii.	INSPECT WELDING PROCESS FOR ALL MULTI-PASS FILLET WELDS AND SINGLE PASS FILLET WELDS GREATER THAN 5/16 INCH	SPECIAL INSPECTION - TECHNICAL II	CONTINUOUS		X	
b.	PARTIAL PENETRATION WELDS					
i.	INSPECT WELDING PROCESS FOR ALL PARTIAL PENETRATION GROOVE WELDS PER AWS D1.1	SPECIAL INSPECTION - TECHNICAL II	CONTINUOUS		X	
ii.	TEST 100% OF ALL PARTIAL PENETRATION WELDS EXCEEDING 5/16 INCH, USING ULTRA-TESTING PER AWS D1.1	SPECIAL INSPECTION - TECHNICAL II	AS NOTED		X	
iii.	TEST 25% OF ALL PARTIAL PENETRATION WELDS LESS THAN 5/16 INCH, USING MAGNETIC PARTICLE TESTING PER ASTM E109, PERFORMED ON ROOT PASS AND ON FINISHED WELD	SPECIAL INSPECTION - TECHNICAL II	AS NOTED		X	
c.	FULL PENETRATION WELDS					
i.	INSPECT WELDING PROCESS FOR ALL FULL PENETRATION GROOVE WELDS, PER AWS D1.1	SPECIAL INSPECTION - TECHNICAL II	CONTINUOUS		X	
ii.	TEST 100% OF ALL FULL PENETRATION WELDS EXCEEDING 5/16 INCH, USING ULTRA-TESTING PER AWS D1.1	SPECIAL INSPECTION - TECHNICAL II	AS NOTED		X	
iii.	TEST 25% OF ALL FULL PENETRATION WELDS LESS THAN 5/16 INCH, USING MAGNETIC PARTICLE TESTING PER ASTM E109, PERFORMED ON ROOT PASS AND ON FINISHED WELD	SPECIAL INSPECTION - TECHNICAL II	AS NOTED		X	

SPECIAL INSPECTION - STRUCTURAL STEEL FRAMING IBC 2009 SECTION 1704.3

	DESCRIPTION	PERFORMED BY	FREQUENCY	OWNER EMPLOY	CONTRACTOR EMPLOY	COMMENTS
d.	PLUG AND SLOT WELDS					
i.	INSPECT WELDING PROCESS FOR ALL PLUG AND SLOT WELDS	SPECIAL INSPECTION - TECHNICAL II	CONTINUOUS		X	
e.	STUD SHEAR CONNECTION WELDS					
i.	VISUALLY INSPECT 100% OF INSTALLED STUDS FOR FULL 360 DEGREE FLASH TEST ALL QUESTIONABLE STUDS, NOT SHOWING FULL 360 DEGREE FLASH BY BENDING STUDS TO 15 DEGREES FROM VERTICAL, AWAY FROM WELD DISCONTINUITY, PER AWS D1.1	SPECIAL INSPECTION - TECHNICAL I	AS NOTED		X	
ii.	RANDOMLY TEST ALL OTHER STUDS BY BENDING TO 15 DEGREES FROM VERTICAL AS NOTED: STUDS WELDED THRU DECK 15%; STUDS WELDED TO BARE STEEL 5%; ALTERNATIVELY, SOUND 100% OF INSTALLED STUDS, FOR FULL PENETRATION WELD, USING AN E-POUND MALL. TEST QUESTIONABLE STUDS AS NOTED ABOVE	SPECIAL INSPECTION - TECHNICAL I	AS NOTED		X	
iii.	VERIFY ALL WELDING FERRULES HAVE BEEN REMOVED	SPECIAL INSPECTION - TECHNICAL I	AS NOTED		X	
f.	STEEL JOIST/JOIST GIRDER WELDS					
i.	PROVIDE TESTING AND INSPECTION FOR FIELD WELDS SPECIFIED ABOVE					
ii.	METAL DECK WELDS					
j.	VISUALLY INSPECT 10% OF TOTAL PUDDLE WELDS ON METAL DECK DESIGNED AS A STRUCTURAL ELEMENT DURING INSTALLATION FOR SIZE, LOCATION, LENGTH AND THICKNESS. FOR WORK DESIGNED AS A STRUCTURAL ELEMENT, VISUALLY INSPECT 100% OF COMPLETED WELDS PRIOR TO COMPLETION OF WORK	SPECIAL INSPECTION - TECHNICAL I	PERIODIC	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
h.	COLD FORMED METAL FRAMING WELDS				X	
i.	VISUALLY INSPECT 10% OF WELDS DURING INSTALLATION FOR SIZE, AND CONTINUITY IN ACCORDANCE WITH AWS D1.3 FOR METAL LESS THAN 1/8 INCH THICKNESS. FOR WORK DESIGNED AS A STRUCTURAL ELEMENT, VISUALLY INSPECT 100% OF COMPLETED WELDS PRIOR TO COMPLETION OF WORK	SPECIAL INSPECTION - TECHNICAL I	AS NOTED		X	
l.	WELDING OF REINFORCING BARS					
i.	VISUALLY INSPECT 100% OF ALL REINFORCING BAR WELDS AS THE WELDING IS PERFORMED, PER AWS D1.4 AND AISC 318 SECTION 3.5.2	SPECIAL INSPECTION - TECHNICAL II	CONTINUOUS	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
ii.	PRIOR TO WELDING, VERIFY WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A706	SPECIAL INSPECTION - TECHNICAL II	PRIOR TO WELDING	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
iii.	PRIOR TO WELDING, VERIFY PROPER JOINT PREPARATION IS PROVIDED AND PROPER ELECTRODES ARE USED AND PROPERLY STORED AND DRIED	SPECIAL INSPECTION - TECHNICAL II	PRIOR TO WELDING	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
j.	MISCELLANEOUS METALS, INSERTS AND PREFABRICATED COMPONENTS					
i.	WHERE INTEGRITY OF THE CONNECTIONS IMPACT LIFE SAFETY OR PERFORMANCE OF THE BUILDING STRUCTURE, PROVIDE TESTING AND INSPECTION AS FOR TYPICAL WELDS SPECIFIED ABOVE					
5.	WELDING (SHOP)					
a.	PERFORM AS SPECIFIED FOR FIELD WELDING ABOVE, EXCEPT WELD TESTING MAY BE REDUCED OR DELETED, IF FABRICATION SHOP SATISFIES AISC QUALITY CERTIFICATION PROGRAM – CATEGORY I, OR MORE STRINGENT CRITERIA, AND IS APPROVED BY BUILDING OFFICIAL AND SER	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	FABRICATOR IS RESPONSIBLE FOR THESE SERVICES
6.	STRUCTURAL CONFIGURATION					
a.	SUBMITTALS: VERIFY MANUFACTURER'S CERTIFIED MILL TEST REPORTS AND OTHER SUBMITTED DOCUMENTATION, FOR COMPLIANCE WITH APPROVED CONSTRUCTION DOCUMENTS IN ACCORDANCE WITH ASTM A6 OR ASTM A568	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
b.	MATERIALS: VERIFY IDENTIFICATION MARKINGS OF STRUCTURAL STEEL MATERIALS DELIVERED TO SITE COMPLY WITH AISC 360 SECTION M5.5 AND CONFORM TO APPROVED CONSTRUCTION DOCUMENTS. MATERIALS INCLUDE STRUCTURAL STEEL, BOLTS, NUTS, WASHERS, ELECTRODES, STEEL DECK GAGE	SPECIAL INSPECTION - TECHNICAL I	PERIODIC		X	
c.	MATERIALS: VERIFY IDENTIFICATION MARKINGS OF ALL OTHER STEEL DELIVERED TO SITE CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS	SPECIAL INSPECTION - TECHNICAL I	PERIODIC		X	
d.	DETAIL COMPATIBILITY					
i.	REVIEW PROJECT DOCUMENTS AFFECTING INTEGRITY OF THE STRUCTURE, INCLUDING APPROVED CONSTRUCTION DOCUMENTS AND PERTINENT SUBMITTALS (APPROVED SHOP DRAWINGS)	SPECIAL INSPECTOR - STRUCTURAL I	AS NOTED		X	
ii.	VISIT SITE, AT INTERVALS APPROPRIATE TO THE STAGE OF CONSTRUCTION, TO PERFORM REVIEW OF THE STRUCTURE AND VISUALLY CONFIRM GENERAL COMPLIANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
iii.	INSPECT THE FOLLOWING TO VERIFY MEMBER LOCATION, ORIENTATION, CONFIGURATION, TYPE, AND SIZE COMPLY WITH DETAILS INDICATED ON THE APPROVED CONSTRUCTION DOCUMENTS AND APPROVED SHOP DRAWINGS. SUSPECTIBLE CONNECTIONS MAY RECEIVE TESTING: MOMENT FRAMES AND CROSS BRACING WELD CONNECTIONS; MOMENT FRAMES AND CROSS BRACING BOLT CONNECTIONS. PERFORM AS SPECIFIED FOR BOLT CONNECTIONS ABOVE	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
iv.	VISUALLY INSPECT 100% OF MAIN-WIND-FORCE-RESISTANCE SYSTEM CONNECTIONS TO CONFIRM CONFORMANCE WITH DETAILS INDICATED ON THE APPROVED CONSTRUCTION DOCUMENTS AND APPROVED SHOP DRAWINGS. SUSPECTIBLE CONNECTIONS MAY RECEIVE TESTING: MOMENT FRAMES AND CROSS BRACING WELD CONNECTIONS; MOMENT FRAMES AND CROSS BRACING BOLT CONNECTIONS. PERFORM AS SPECIFIED FOR BOLT CONNECTIONS ABOVE	SPECIAL INSPECTOR - STRUCTURAL II	AS NOTED		X	

CONSTRUCTION DOCUMENTS 100%

SPECIAL INSPECTION – EARTHWORK (GRADING, EXCAVATION AND FILLING) – IBC 2009 SECTION 1704.7

1. SPECIAL INSPECTIONS ARE REQUIRED FOR ALL EARTH WORK INDICATED BELOW, EXCEPT DURING PLACEMENT OF CONTROLLED FILL HAVING A TOTAL DEPTH OF 12 INCHES OR LESS.
2. QUALIFICATIONS:
- a. SPECIAL INSPECTOR – TECHNICAL
- i. TECHNICAL I: TECHNICIAN SHALL BE UNDER THE DIRET SUPERVISION OF A TECHNICAL III. WORK SHALL BE PERFORMED IN A QUALIFIED GEOTECHNICAL/TESTING LABORATORY.
- ii. TECHNICAL II: TECHNICIAN WITH A MINIMUM OF 2 YEARS EXPERIENCE, OR A GRADUATE ENGINEER, AND IS AN EMPLOYEE OF A QUALIFIED AND APPROVED GEOTECHNICAL/TESTING LABORATORY, UNDER DIRECT SUPERVISION OF A TECHNICAL III.
- iii. TECHNICAL III: A CIVIL/GEOTECHNICAL ENGINEER REGULARLY ENGAGED IN THIS TYPE OF WORK, WITH A MINIMUM OF 4 YEARS EXPERIENCE, LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED, AND IS AN EMPLOYEE OF A QUALIFIED AND APPROVED GEOTECHNICAL/TESTING LABORATORY. THE LICENSED ENGINEER SHALL REVIEW AND APPROVE ALL FINAL FIELD REPORTS.

SPECIAL INSPECTION - EARTHWORK (GRADING, EXCAVATION AND FILLING) IBC 2009 SECTION 1704.7						
	DESCRIPTION	PERFORMED BY	FREQUENCY	OWNER EMPLOY	CONTRACTOR EMPLOY	COMMENTS
1.	CLASSIFY MATERIALS USED AND ENCOUNTERED DURING CONSTRUCTION PER ASTM D2486 AND ASTM D2487	SPECIAL INSPECTOR - TECHNICAL I	PERIODIC		X	
2.	PERFORM LABORATORY TESTING OF MATERIALS, AS NEEDED (PROCTOR, SIEVE ANALYSIS, ATTERBERG LIMITS, CONSOLIDATION TEST, ETC.), PROVIDE RESULTS OF TESTING INDICATING COMPLIANCE WITH OR DEVIATIONS FROM APPROVED CONSTRUCTION DOCUMENTS OR GEOTECHNICAL REPORT.	SPECIAL INSPECTOR - TECHNICAL I	PER TECHNICAL SPEC.		X	SEE TECHNICAL SPECIFICATION FOR FIELD QUALITY REQUIREMENTS
3.	PERFORM FIELD DENSITY TESTS. PROVIDE RESULTS OF TESTING INDICATING COMPLIANCE WITH OR DEVIATIONS FROM APPROVED CONSTRUCTION DOCUMENTS OR GEOTECHNICAL REPORT	SPECIAL INSPECTOR - TECHNICAL I	PER TECHNICAL SPEC.		X	SEE TECHNICAL SPECIFICATION FOR FIELD QUALITY REQUIREMENTS
4.	OBSERVE ALL SUBGRADES AND EXCAVATIONS BASES BELOW FOOTINGS AND SLAB-ON-GRADE, AND VERIFY MATERIALS ARE ADEQUATE SO THAT DESIGN BEARING CAPACITY IS ACHIEVED. VERIFY EXCAVATIONS EXTEND TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL. DOCUMENT PRESENCE OF GROUNDWATER WITHIN EXCAVATIONS	SPECIAL INSPECTOR - TECHNICAL II	PERIODIC		X	
5.	OBSERVE SUBGRADE PRIOR TO PLACEMENT OF CONTROLLED FILL. VERIFY SITE HAS BEEN PROPERLY PREPARED	SPECIAL INSPECTOR - TECHNICAL III	CONTINUOUS		X	
6.	VERIFY USE OF PROPER MATERIALS, DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL.	SPECIAL INSPECTOR - TECHNICAL II	PERIODIC		X	
7.	VERIFY THAT FOOTINGS COMPLY WITH FROST DEPTH REQUIREMENTS AND SHALL REPORT ANY VARIANCES TO THE SER IN A TIMELY MANNER.	SPECIAL INSPECTOR - TECHNICAL I	PERIODIC		X	
8.	PROVIDE REPORTS OF SUBGRADE OBSERVATIONS INDICATING GENERAL COMPLIANCE WITH OR DEVIATIONS FROM APPROVED CONSTRUCTION DOCUMENTS AND GEOTECHNICAL REPORT	SPECIAL INSPECTOR - TECHNICAL II	PERIODIC		X	
9.	VERIFY CUT AND FILL SLOPES AS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS	SPECIAL INSPECTOR - TECHNICAL III	PERIODIC		X	

SPECIAL INSPECTION – MASONRY – IBC 2009 SECTION 1704.5

1. EXEMPTIONS: SPECIAL INSPECTION IS NOT REQUIRED FOR THE FOLLOWING:
- a. EMPIRICALLY DESIGNED MASONRY, GLASS UNIT MASONRY, OR MASONRY VENEER DESIGNED BY IBC 2009 SECTION 2109, 2110 OR CHAPTER 14, OR ACI 530 CHAPTER 5, 6, OR 7 WHEN THEY ARE PART OF BUILDING(S) IN OCCUPANCY CATEGORIES I, II, OR III.
- b. MASONRY FOUNDATION WALLS CONSTRUCTED IN ACCORDANCE WITH IBC 2009 TABLE 1807.1.3.3(1), 1807.1.3.3(2), 1807.1.3.3(3), OR 1807.1.3.3(4).
- c. MASONRY FIREPLACES, MASONRY CHIMNEYS, OR MASONRY CHIMNEYS INSTALLED OR CONSTRUCTED IN ACCORDANCE WITH IBC 2009 SECTION 2111, 2112, OR 2113, RESPECTIVELY.
2. "PERIODIC" SHALL BE PERFORMED AT LEAST ONCE PER 1,000 SQUARE FEET, EXCEPT GROUT PLACEMENT IN SHEAR WALLS, MASONRY BEAMS, AND MASONRY COLUMNS SHALL BE INSPECTED ON A CONTINUOUS BASIS.
3. REFER TO THE PROJECT SPECIFICATIONS FOR GROUT COMPRESSIVE TEST, MORTAR TEST AND VERIFICATION OF DESIGN COMPRESSIVE STRENGTH REQUIREMENTS.
4. QUALIFICATIONS:
- a. SPECIAL INSPECTOR – TECHNICAL
- i. TECHNICAL I: TECHNICIAN SHALL BE UNDER THE DIRECT SUPERVISION OF A TECHNICAL III REGULARLY ENGAGED IN TESTING AND INSPECTION OF THIS TYPE OF WORK. THE LICENSED ENGINEER SHALL REVIEW AND APPROVE ALL INSPECTION REPORTS.
- ii. TECHNICAL II: GRADUATE CIVIL/STRUCTURAL ENGINEER, WITH EXPERIENCE IN THIS TYPE OF WORK, SUPERVISED BY A TECHNICAL III. THE LICENSED ENGINEER SHALL REVIEW AND APPROVE ALL INSPECTION REPORTS.
- iii. TECHNICAL III: A CIVIL/STRUCTURAL ENGINEER REGULARLY ENGAGED IN THIS TYPE OF WORK, WITH A MINIMUM OF 4 YEARS EXPERIENCE, LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED, AND IS AN EMPLOYEE OF A QUALIFIED AND APPROVED TESTING LABORATORY. THE LICENSED ENGINEER SHALL REVIEW AND APPROVE ALL REPORTS.
- b. SPECIAL INSPECTOR – STRUCTURAL
- i. STRUCTURAL I: GRADUATE CIVIL/STRUCTURAL ENGINEER, OR OTHER PERSONNEL ACCEPTABLE TO THE SER, WITH EXPERIENCE IN THE DESIGN OF STRUCTURAL SYSTEMS OF THIS TYPE. INSPECTIONS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A STRUCTURAL II.
- ii. STRUCTURAL II: CIVIL/STRUCTURAL ENGINEER REGULARLY ENGAGED IN THE DESIGN OF STRUCTURAL SYSTEMS OF THIS TYPE, LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED. THE LICENSED ENGINEER SHALL REVIEW AND APPROVE ALL INSPECTION REPORTS. STRUCTURAL INSPECTOR – STRUCTURAL MAY BE BY INDEPENDENT TESTING AGENCY, SER, OR SER REPRESENTATIVE WITH DIRECT SUPERVISION BY SER.

SPECIAL INSPECTION – PRECAST STRUCTURAL CONCRETE – IBC 2009 SECTION 1704.2 AND 1704.7

1. QUALIFICATIONS:
- a. SPECIAL INSPECTOR – TECHNICAL
- i. NOT USED.
- b. SPECIAL INSPECTOR – STRUCTURAL
- i. STRUCTURAL I: GRADUATE CIVIL/STRUCTURAL ENGINEER, OR OTHER PERSONNEL ACCEPTABLE TO THE SER, WITH EXPERIENCE IN THE DESIGN OF STRUCTURAL SYSTEMS OF THIS TYPE. INSPECTIONS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A STRUCTURAL II.
- ii. STRUCTURAL II: CIVIL/STRUCTURAL ENGINEER REGULARLY ENGAGED IN THE DESIGN OF STRUCTURAL SYSTEMS OF THIS TYPE, LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED. THE LICENSED ENGINEER SHALL REVIEW AND APPROVE ALL INSPECTION REPORTS.
- iii. STRUCTURAL INSPECTOR – STRUCTURAL MAY BE BY INDEPENDENT TESTING AGENCY, SER, OR SER REPRESENTATIVE WITH DIRECT SUPERVISION BY SER.
2. FABRICATION:
- a. APPROVED FABRICATORS: POSSES PRIOR APPROVAL IN ACCORDANCE WITH IBC 2009 SECTION 1704.2.2.
- i. UPON COMPLETION OF FABRICATION, THE PRECAST APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE BUILDING OFFICIAL STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH APPROVED CONSTRUCTION DOCUMENTS, APPROVED STRUCTURAL DESIGN, ACI 318 AND PCI MNL 120 "PCI DESIGN HANDBOOK – PRECAST AND PRESTRESSED CONCRETE" STANDARDS SPECIFICATION.
- b. ALL OTHER FABRICATORS
- i. FABRICATOR TO ENGAGE A QUALIFIED INDEPENDENT SPECIAL INSPECTOR TO PERFORM INSPECTIONS INDICATED BELOW. SPECIAL INSPECTOR TO PREPARE REPORT AND SUBMIT TO BUILDING OFFICIAL. PAYMENT FOR THESE SERVICES WILL BE MADE BY THE FABRICATOR. THE SPECIAL INSPECTOR SHALL VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. THE SPECIAL INSPECTOR SHALL REVIEW THE PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK, CONDUCTED BY SPECIAL INSPECTOR – STRUCTURAL I.

SPECIAL INSPECTION - PRECAST STRUCTURAL CONCRETE IBC 2009 SECTION 1704.2 AND 1704.7						
	DESCRIPTION	PERFORMED BY	FREQUENCY	OWNER EMPLOY	CONTRACTOR EMPLOY	COMMENTS
1.	FABRICATOR IS RESPONSIBLE FOR PROVIDING SPECIAL INSPECTOR DURING FABRICATION. SEE REQUIREMENTS IDENTIFIED IN GENERAL NOTES ABOVE	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	FABRICATOR IS RESPONSIBLE FOR THESE SERVICES
2.	VERIFY ON SITE INSTALLATION CONFORMS TO APPROVED CONSTRUCTION DOCUMENTS AND APPROVED SHOP DRAWINGS	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	AISC 318 CHAPTER 16

SPECIAL INSPECTION - MASONRY IBC 2009 SECTION 1704.5 - LEVEL TWO						
	DESCRIPTION	PERFORMED BY	FREQUENCY	OWNER EMPLOY	CONTRACTOR EMPLOY	COMMENTS
1.	MASONRY PREPARATION AND PLACEMENT	SPECIAL INSPECTOR - TECHNICAL I	PRIOR TO START		X	
a.	PRIOR TO CONSTRUCTION AND FOR EVERY 5,000 SQUARE FEET DURING CONSTRUCTION, VERIFY F _m AND F _{AC} .	SPECIAL INSPECTOR - TECHNICAL I	PERIODIC		X	
b.	VERIFY MASONRY BEARING SURFACES ARE CLEAN	SPECIAL INSPECTOR - TECHNICAL I	PERIODIC		X	
c.	VERIFY THAT MASONRY UNITS ARE CLEAN AND SOUND AND DRY	SPECIAL INSPECTOR - TECHNICAL I	PERIODIC		X	
d.	VERIFY PROPORTIONS OF PREPARED MORTAR ARE CONSISTENT WITH PREVIOUSLY SUBMITTED MATERIALS. VERIFY PROPORTIONS OF MATERIALS IN PREMIXED OR PREBLEND MORTAR AS DELIVERED TO CONSTRUCTION SITE	SPECIAL INSPECTOR - TECHNICAL I	PERIODIC		X	
e.	INSPECT LAYING OF MASONRY UNITS FOR THE FOLLOWING: NOMINAL UNIT WIDTHS, STACK OR RUNNING BOND, PROPER THICKNESS AND TOOLING OF MORTAR JOINTS, ACCEPTABLE DEPTH OF FURROWING OF BED JOINTS. NOTE TEMPERATURE AT TIME OF INSPECTION	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
f.	VERIFY SIZE AND LOCATION OF STRUCTURAL ELEMENTS	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
g.	OBSERVE SELECTION OF SAMPLES FOR MASONRY UNIT TESTS OR PREPARATION, STORAGE, HANDLING OF ANY REQUIRED GROUT SPECIMENS, MORTAR SPECIMENS AND/OR PRISMS, DEPENDING ON METHOD USED. (CONTRACTOR SHALL PROVIDE LABOR AND MATERIALS TO CONSTRUCT ALL PRISM TESTS.)	SPECIAL INSPECTOR - STRUCTURAL I	CONTINUOUS		X	
h.	INSPECT CONSTRUCTION, EXPANSION AND CONTRACTION JOINTS FOR LOCATION AND CONTINUITY OF STEEL	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
i.	VERIFY HOT AND COLD WEATHER PROCEDURES ARE FOLLOWED PER IBC 2009 SECTION 2104.3 AND 2104.4	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
j.	VERIFY WALL CAVITIES ARE PROTECTED AGAINST ENTRY OF PRECIPITATION	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
2.	MASONRY REINFORCEMENT					
a.	INSPECT PLACEMENT AND ALIGNMENT, SIZE, GRADE AND SPACING OF VERTICAL REINFORCEMENT AND DOWELS. INSPECT LENGTH OF LAP SPLICES, CLEARANCES BETWEEN BARS, CLEARANCES TO MASONRY UNITS AND OUTSIDE FACE OF WALLS, AND POSITIONING OF STEEL	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
b.	INSPECT HORIZONTAL JOINT REINFORCEMENT STEEL AND MASONRY REINFORCEMENT BARS FOR SIZE, LENGTH OF LAP SPLICES, DOWELS, CLEARANCES BETWEEN BARS, CLEARANCE TO MASONRY UNITS AND OUTSIDE FACE OF WALLS, AND ALIGNMENT	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
c.	INSPECT TIES IN MASONRY FOR TYPE, STRAIGHTNESS, EMBEDMENT, SPACING AND SIZE	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
d.	VERIFY TYPE, SIZE, AND LOCATION OF ANCHORS, INCLUDING MASONRY ANCHORAGE TO STRUCTURAL MEMBERS, FRAMES, AND OTHER CONSTRUCTION	SPECIAL INSPECTOR - STRUCTURAL I	CONTINUOUS		X	
e.	VERIFY WELDABILITY OF REINFORCING STEEL. VERIFY WELDING OF REINFORCING BARS COMPLIES WITH REQUIREMENTS SET FORTH IN IBC 2009 SECTION 2.1.9.7.2 AND 3.3.3.4(B)	SPECIAL INSPECTOR - STRUCTURAL I	CONTINUOUS	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
3.	MASONRY PRESTRESSING					
a.	AS CONSTRUCTION BEGINS, VERIFY PRESTRESSING TECHNIQUE AND GRADE, SIZE, AND LOCATION OF PRESTRESSING TENDONS AND ANCHORAGES	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
b.	INSPECT APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE	SPECIAL INSPECTOR - STRUCTURAL I	CONTINUOUS	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
c.	PRIOR TO GROUTING, VERIFY PLACEMENT OF PRESTRESSING TENDONS AND ANCHORAGES	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
d.	PRIOR TO GROUTING, VERIFY PROPORTIONS OF PRESTRESSING GROUT FOR BONDED TENDONS	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
e.	INSPECT GROUTING OF BONDED PRESTRESSING TENDONS. VERIFY PROPER GROUTING TECHNIQUE INCLUDING CONSOLIDATION TO APPROVED HEIGHT OF GROUT SPACE, RECONSOLIDATION AND VIBRATION	SPECIAL INSPECTOR - STRUCTURAL I	CONTINUOUS	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
4.	PRIOR TO MASONRY GROUTING AND CAPPING					
a.	VERIFY THAT GROUT SPACES ARE CORRECTLY SIZED AND CLEAN. CLEANOUTS ARE CLOSED AFTER INSPECTION AND GROUT BARRIERS ARE IN PLACE BEFORE GROUTING	SPECIAL INSPECTOR - STRUCTURAL I	CONTINUOUS		X	
b.	VERIFY PLACEMENT OF REINFORCEMENT AND CONNECTORS REMAINS CONSISTENT WITH CONSTRUCTION DOCUMENTS	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
c.	VERIFY PROPORTIONS OF SITE PREPARED GROUT ARE CONSISTENT WITH PREVIOUSLY SUBMITTED MATERIALS. VERIFY PROPORTIONS OF MATERIALS IN PREMIXED OR PREBLEND GROUT AS DELIVERED TO CONSTRUCTION SITE	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
d.	VERIFY CONSTRUCTION OF MORTAR JOINTS	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
5.	DURING GROUTING OPERATIONS					
a.	VERIFY SLUMP, FLOW AND VSI AS DELIVERED TO PROJECT SITE FOR SELF-CONSOLIDATING GROUT	SPECIAL INSPECTOR - STRUCTURAL I	CONTINUOUS		X	
b.	VERIFY PROPER GROUTING TECHNIQUE INCLUDING CONSOLIDATION TO APPROVED HEIGHT OF GROUT SPACE, RECONSOLIDATION AND VIBRATION	SPECIAL INSPECTOR - STRUCTURAL I	CONTINUOUS		X	
c.	VERIFY PROPER APPLICATION OF DRY PACKING	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	
6.	VERIFY THAT WORK IS BEING PERFORMED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS AND THAT MATERIALS USED ARE CONSISTENT WITH SUBMITTALS	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	

No	REVISION	DATE



Alexandria
525 Broadway Street
Alexandria, MN 56308
phone 320.759.9030
www.jlgarchitects.com
copyright © 2014

STANDARD:
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATIONS OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A QUALIFIED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Brian J. Aschke
BRIAN J. ASCHKE, P.E.
DATE: 04.01.15

MIN. ARCHS.
REG. NO.

DRAWING TITLE
SPECIAL INSPECTIONS PROGRAMS

PROJECT TITLE
CONSTRUCT NEW IT CENTER FOR HEALTHCARE TECHNOLOGY MANAGEMENT EXPANSION

BUILDING No. BA
CHECKED BY BA
DRAWN AW

LOCATION
VA MEDICAL CENTER
ST. CLOUD, MN 56303

DATE 04.01.15
PROJECT SCALE AS NOTED
PROJECT NO. 656-14246
CADD FILE XXX
DRAWING NO. S021
SHEET 2 OF XX



CONSTRUCTION DOCUMENTS 100%

A

B

C

D

E

F

A

B

C

D

E

F

SPECIAL INSPECTION - ROUGH CARPENRY IBC 2009 SECTION 1704.2 AND 1704.6

1. QUALIFICATIONS:

a. SPECIAL INSPECTOR – TECHNICAL

i. TECHNICAL I: TECHNICIAN SHALL BE UNDER THE DIRECT SUPERVISION OF A TECHNICAL III. WORK SHALL BE PERFORMED IN A QUALIFIED TESTING LABORATORY.

ii. TECHNICAL II: TECHNICIAN WITH A MINIMUM OF 2 YEARS EXPERIENCE, OR A GRADUATE ENGINEER, AND IS AN EMPLOYEE OF A QUALIFIED TESTING LABORATORY, UNDER THE DIRECT SUPERVISION OF A TECHNICAL III.

iii. TECHNICAL III: AN ENGINEER REGULARLY ENGAGED IN THIS TYPE OF WORK WITH A MINIMUM OF 4 YEARS EXPERIENCE, AND IS AN EMPLOYEE OF A QUALIFIED AND APPROVED TESTING LABORATORY. THE LICENSED ENGINEER SHALL REVIEW AND APPROVE ALL REPORTS.

b. SPECIAL INSPECTOR – STRUCTURAL

i. STRUCTURAL I: GRADUATE CIVIL/STRUCTURAL ENGINEER, OR OTHER PERSONNEL ACCEPTABLE TO THE SER, WITH EXPERIENCE IN THE DESIGN OF STRUCTURAL SYSTEMS OF THIS TYPE. INSPECTIONS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A STRUCTURAL II.

ii. STRUCTURAL II: CIVIL/STRUCTURAL ENGINEER REGULARLY ENGAGED IN THE DESIGN OF STRUCTURAL SYSTEMS OF THIS TYPE, LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED. THE LICENSED ENGINEER SHALL REVIEW AND APPROVE ALL INSPECTION REPORTS.

iii. STRUCTURAL INSPECTOR – STRUCTURAL MAY BE BY INDEPENDENT TESTING AGENCY, SER, OR SER REPRESENTATIVE WITH DIRECT SUPERVISION BY SER.
2. FABRICATION:

a. APPROVED FABRICATORS: POSSES PRIOR APPROVAL IN ACCORDANCE WITH IBC 2009 SECTION 1704.2.2

i. UPON COMPLETION OF FABRICATION, THE PREFABRICATED WOOD JOIST APPROVED FABRICATOR SHALL SUBMIT A CERTIFICATE OF COMPLIANCE TO THE BUILDING OFFICIAL STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH APPROVED CONSTRUCTION DOCUMENTS, APPROVED STRUCTURAL DESIGN AND ASTM D5055 STANDARD SPECIFICATION.

b. ALL OTHER FABRICATORS

i. FABRICATOR TO ENGAGE A QUALIFIED INDEPENDENT SPECIAL INSPECTOR TO PERFORM INSPECTIONS INDICATED BELOW. SPECIAL INSPECTOR TO PREPARE REPORT AND SUBMIT TO BUILDING OFFICIAL. PAYMENT FOR THESE SERVICES WILL BE MADE BY THE FABRICATOR.

ii. THE SPECIAL INSPECTOR SHALL VERIFY THAT THE FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS. THE SPECIAL INSPECTOR SHALL REVIEW THE PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK. CONDUCTED BY SPECIAL INSPECTOR – STRUCTURAL I.

SPECIAL INSPECTION - ROUGH CARPENRY IBC 2009 SECTION 1704.2 AND 1704.6						
	DESCRIPTION	PERFORMED BY	FREQUENCY	OWNER EMPLOY	CONTRACTOR EMPLOY	COMMENTS
1.	FABRICATOR IS RESPONSIBLE FOR PROVIDING SPECIAL INSPECTION DURING FABRICATION. SEE REQUIREMENTS IDENTIFIED IN GENERAL NOTES ABOVE	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC			FABRICATOR IS RESPONSIBLE FOR THESE SERVICES
2.	FABRICATOR TO COMPLY WITH MINIMUM STANDARDS AND QUALITY FOR PREFABRICATED WOOD JOISTS PER IBC 2009, SECTION 2303.1.2					FABRICATOR IS RESPONSIBLE FOR THESE SERVICES
3.	FABRICATOR TO COMPLY WITH MINIMUM STANDARDS AND QUALITY FOR STRUCTURAL COMPOSITE LUMBER PER IBC 2009, SECTION 2303.1.9					FABRICATOR IS RESPONSIBLE FOR THESE SERVICES
4.	PRIOR TO CONSTRUCTION, TEST JOIST HANGERS PER ASTM D1761 AND IBC 2009, SECTION 1716.1					FABRICATOR IS RESPONSIBLE FOR THESE SERVICES
5.	VERIFY ONSITE INSTALLATION CONFORMS TO APPROVED CONSTRUCTION DOCUMENTS AND APPROVED SHOP DRAWINGS	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC		X	

SPECIAL INSPECTION - SHEATHING IBC 2009 SECTION 1704.6

1. QUALIFICATIONS:

a. SPECIAL INSPECTOR – TECHNICAL

i. NOT USED.

b. SPECIAL INSPECTOR – STRUCTURAL

i. STRUCTURAL I: GRADUATE CIVIL/STRUCTURAL ENGINEER, OR OTHER PERSONNEL ACCEPTABLE TO THE SER, WITH EXPERIENCE IN THE DESIGN OF STRUCTURAL SYSTEMS OF THIS TYPE. INSPECTIONS SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF A STRUCTURAL II.

ii. STRUCTURAL II: CIVIL/STRUCTURAL ENGINEER REGULARLY ENGAGED IN THE DESIGN OF STRUCTURAL SYSTEMS OF THIS TYPE, LICENSED IN THE STATE IN WHICH THE PROJECT IS LOCATED. THE LICENSED ENGINEER SHALL REVIEW AND APPROVE ALL INSPECTION REPORTS.

iii. STRUCTURAL INSPECTOR – STRUCTURAL MAY BE BY INDEPENDENT TESTING AGENCY, SER, OR SER REPRESENTATIVE WITH DIRECT SUPERVISION BY SER.

SPECIAL INSPECTION - SHEATHING IBC 2009 SECTION 1704.6						
	DESCRIPTION	PERFORMED BY	FREQUENCY	OWNER EMPLOY	CONTRACTOR EMPLOY	COMMENTS
1.	VERIFY THE FOLLOWING HIGH-LOAD DIAPHRAGM CONFORMS TO CONTRACT DOCUMENTS					APPLICABLE TO HIGH-LOAD DIAPHRAGMS DESIGNED IN ACCORDANCE TO IBC 2009, TABLE 2306.2.1(2)
a.	VERIFY SHEATHING GRADE AND THICKNESS COMPLIES WITH APPROVED CONSTRUCTION DOCUMENTS	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
b.	VERIFY NOMINAL SIZE OF FRAMING MEMBERS AT ADJOINING PANEL EDGES	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
c.	VERIFY FASTENER TYPE AND SPACING REQUIREMENTS	SPECIAL INSPECTOR - STRUCTURAL I	PERIODIC	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE

CONSTRUCTION DOCUMENTS 100%

No

REVISION

DATE

JLCAlexandria

525 Broadway Street
Alexandria, MN 56308
phone 320.759.9030
facsimile 320.759.9062
www.jlgarchitects.com
copyright © 2014

STAMP/SEAL

I HEREBY CERTIFY THAT THIS SEAL, INFORMATION AND REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A QUALIFIED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Brian L. Aschke, P.E.

MIN. ADDRESS
REG. NO.

DATE: 04.01.15

DRAWING TITLE
SPECIAL INSPECTIONS PROGRAMS

PROJECT TITLE
CONSTRUCT NEW IT CENTER FOR HEALTHCARE TECHNOLOGY MANAGEMENT EXPANSION

BUILDING No. BA

DRAWN AW

LOCATION
VA MEDICAL CENTER ST. CLOUD, MN 56303

DRAWING NO. S022

REV. 2 of XX

DATE 04.01.15

PROJECT NO. 656-14246

FILE XXX

ST. CLOUD VA Health Care System

Brainerd | Montevideo | Alexandria

VA FORM 08-6231

A

B

C

D

E

F

A

B

C

D

E

F

STRUCTURAL ABBREVIATIONS	
ADD'L	ADDITIONAL
AGG	AGGREGATE
ALT	ALTERNATIVE
AB	ANCHOR BOLT(S)
&	AND
ARCH	ARCHITECT OR ARCHITECTURAL
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL
@	AT
BSMT	BASEMENT
BM	BEAM
R	BEAM REACTION
BRG	BEARING
BTWN	BETWEEN
BLK	BLOCK
BD.BM	BOND BEAM
BOT	BOTTOM
BLDG	BUILDING
CANT	CANTILEVER
CLG	CEILING
CTR	CENTER
CL	CENTER LINE
CTWD	COUNTERED
CLR	CLEAR
COL	COLUMN
COMP	COMPOSITE
C	COMPRESSION
CONC	CONCRETE
CMU	CONCRETE MASONRY UNIT
CONN	CONNECTION
CONST	CONSTRUCTION
CJ	CONSTRUCTION, CONTROL, OR CONTRACTION JOINT
CONT	CONTINUOUS
CONTR	CONTRACTOR
DL	DEAD LOAD
DBE	DECK BEARING ELEVATION
DEFL	DEFLECTION
DET	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DWLS(S)	DOWEL(S)
DWG(S)	DRAWING(S)
EA	EACH
EF	EACH FACE
EW	EACH WAY
E	EAST
E-W	EAST-WEST
ELEC	ELECTRICAL
EL	ELEVATION
ELEV	ELEVATOR
EQ	EQUAL
EXIST	EXISTING
EXP	EXPANSION
EXP JT	EXPANSION JOINT
EXT	EXTERIOR
FF	FAR FACE
FFE	FINISHED FLOOR ELEVATION
FLR	FLOOR
FT	FOOT
FTG	FOOTING
FDN	FOUNDATION
GALV	GALVANIZED
GA	GUAGE
GC	GENERAL CONTRACTOR
GLU-LAM	GLUED LAMINATED WOOD
HAS	HEADED ANCHOR STUD
HS	HEADED STUD(S)
HP	HIGH POINT
HK	HOOK
HORZ	HORIZONTAL
IN	INCH
ID	INSIDE DIAMETER
IF	INSIDE FACE
INSUL	INSULATION
INT	INTERIOR
JNT	JOINT

STRUCTURAL ABBREVIATIONS	
JBE	JOIST BEARING ELEVATION
JST(S)	JOIST(S)
K	KIPS
KIP	1 KIP = 1,000 LBS
KLF	KIPS PER FOOT
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
LW	LIGHT WEIGHT
LVL	LUNTEL
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
MAS	MASONRY
MO	MASONRY OPENING
MAT	MATERIAL
MAX	MAXIMUM
MECH	MECHANICAL
MEZZ	MEZZANINE
ML	MICRO LAMINATED WOOD
MIN	MINIMUM
MISC	MISCELLANEOUS
M	MOMENT
NF	NEAR FACE
NEC	NECESSARY
NOM	NOMINAL
N	NORTH
N-S	NORTH-SOUTH
NTS	NOT TO SCALE
#	NUMBER
OC	ON CENTER
OPNG	OPENING
OPP	OPPOSITE
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
/	PER
PLK	PLANK
PL	PLATE
PT	POST TENSION
LBS	POUNDS
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
P/C	PRECAST CONCRETE
REBAR	REINFORCING BAR
REINP	REINFORCING OR REINFORCE
REQ'D	REQUIRED
REV	REVERSE
RTU	ROOF TOP UNIT
SCHED	SCHEDULE
SEC	SECTION
V	SHEAR
SHT	SHEET
SIM	SIMILAR
S	SOUTH
SPEC	SPECIFICATION
SQ	SQUARE
STD	STANDARD
STL	STEEL
STIFF	STIFFENER
SUPP	SUPPORT
TEMP	TEMPORARY OR TEMPERATURE
T	TENSION
THRU	THROUGH
T&B	TOP AND BOTTOM
TBE	TOP OF BEAM ELEVATION
TFE	TOP OF FOOTING ELEVATION
TPE	TOP OF PIER ELEVATION
TQ	TORQUE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
WWF	WELDED WIRE FABRIC
W	WEST OR WIDE FLANGE
W/	WITH
W/O	WITHOUT
WO	WOOD
WP	WORK POINT

STRUCTURAL KEYNOTES	
#	NOTE

SYMBOLS LEGEND

FRAMING TAGS

F 3.0	FOUNDATION TAG
P 1	PIER TAG
W24x68	FRAMING TAG
JXX	JAMB TAG
HXX	HEADER TAG
WB-XX	WOOD BEAM TAG
SW-XX	SHEAR WALL TAG
105BANK14	COLUM TAG

COLUMN / GRID IDENTIFICATION

#X	NEW COLUMN / STRUCTURAL GRID
#X	EXISTING COLUMN / STRUCTURAL GRID
NAME ELEVATION	ELEVATION DATUM

CALLOUT/SECTION IDENTIFICATION

A444	DRAWING NUMBER
A444	AREA OF CALLOUT
1	SHEET NUMBER
1	DRAWING NUMBER
A101	DIRECTION OF VIEW FROM CUT
A101	LINE OF CUT
A101	SHEET NUMBER

DRAWING IDENTIFICATION

44	DRAWING/SHEET NUMBER
A101b	DRAWING NAME
A101b	SCALE

NORTH ARROW

TRUE NORTH	PROJECT NORTH
------------	---------------

ANNOTATIONS

S	STEP FOUNDATION INDICATOR
O	JOIST BOLTED CONNECTION
XX	SHEET KEYNOTE

CONSTRUCTION DOCUMENTS 100%

No	REVISION	DATE

VA FORM 08-6231



Alexandria
525 Broadway Street
Alexandria, MN 56308
phone 320.759.9030
facsimile 320.759.9062
www.jlgarchitects.com
copyright © 2014

STAMPED:
I HEREBY CERTIFY THAT THIS PLAN,
SPECIFICATION OR REPORT WAS PREPARED BY
OR UNDER THE CLOSE PERSONAL SUPERVISION
OF A PROFESSIONAL ENGINEER OR ARCHITECT
WHO IS A duly licensed professional engineer
under the laws of the State of Minnesota.
Brian L. Asche
DATE: 04.01.15
BY: BLS
REG. NO.: 105

DRAWING TITLE
STRUCTURAL KEYNOTES &
SCHEDULES

PROJECT TITLE
CONSTRUCT NEW IT CENTER
FOR HEALTHCARE
TECHNOLOGY
MANAGEMENT EXPANSION

DATE
04.01.15
PROJECT SCALE
AS NOTED
PROJECT NO.
656-14246

BUILDING No.
DIRECTED BY
BA
DRAWN
AW
CADD FILE
XXX

LOCATION
VA MEDICAL CENTER
ST. CLOUD, MN 56303

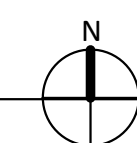
DRAWING NO.
S030
SHEET NO. OF XX



FOOTING NOTES

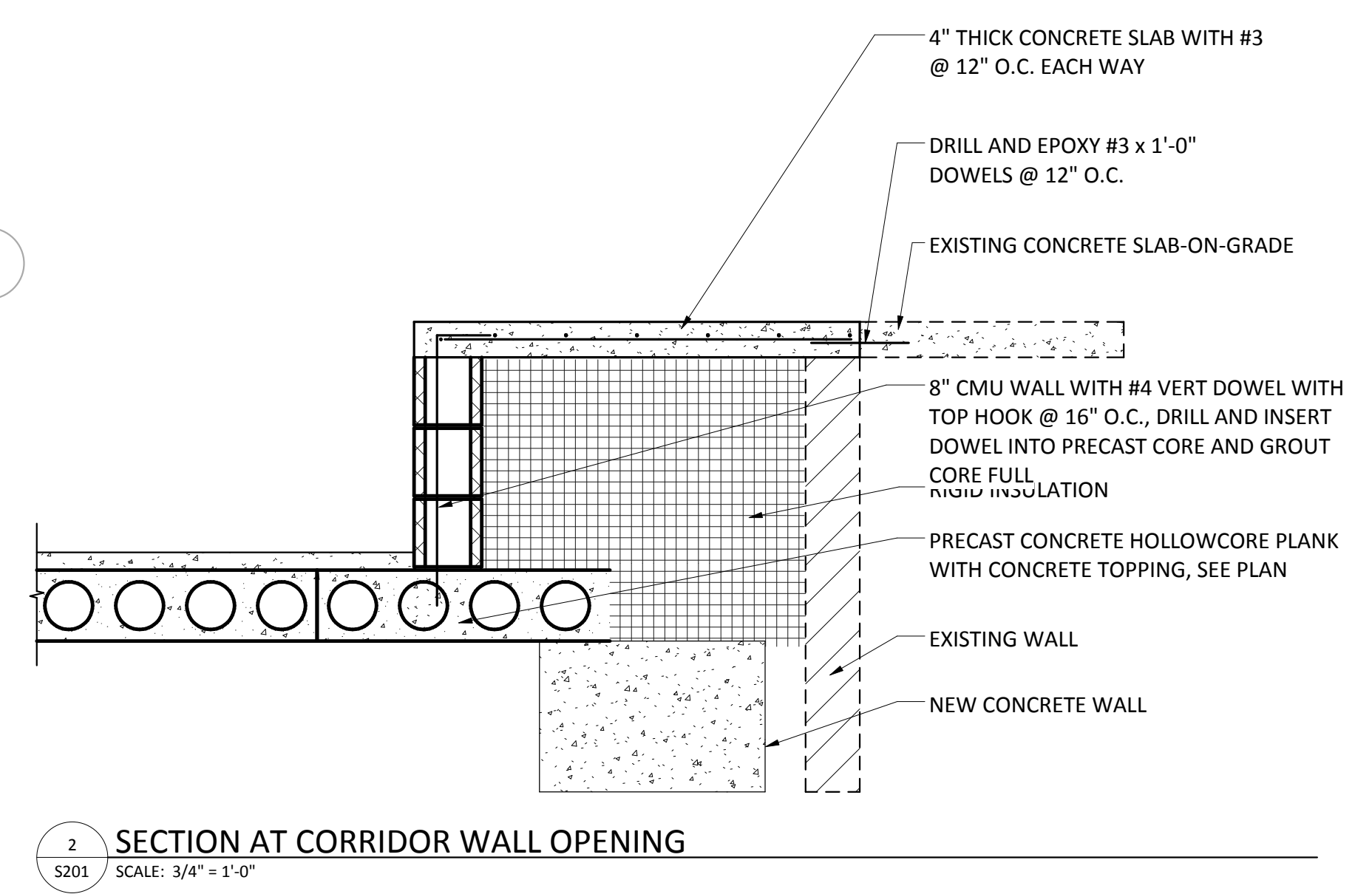
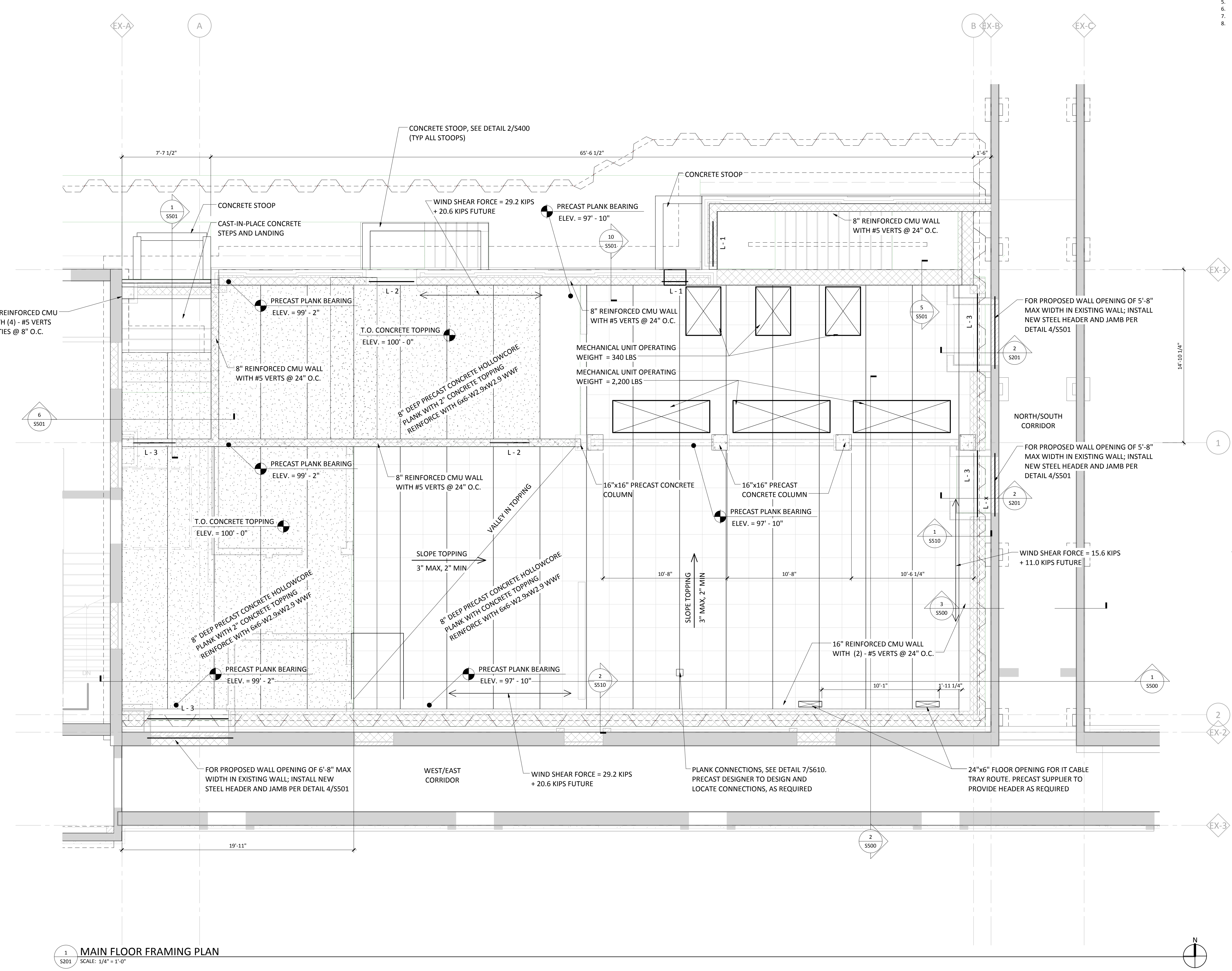
1. CENTER FOOTINGS UNDER FOUNDATION UNLESS DIMENSIONED OTHERWISE
2. SPACE REINFORCEMENT UNIFORMLY ACROSS FOOTING
3. PLACE REINFORCEMENT 3" CLEAR FROM BOTTOM OF FOOTING EXCEPT WHERE DIMENSIONED OTHERWISE
4. RE- SPECIFIC SECTIONS FOR FOOTINGS NOT INCLUDED IN SCHEDULE
5. SEE PLAN VIEW 3/5400 FOR TRANSVERSE REBAR PLACEMENT LAYOUT

1. CENTER FOOTINGS UNDER FOUNDATION UNLESS DIMENSIONED OTHERWISE
2. SPACE REINFORCEMENT UNIFORMLY ACROSS FOOTING
3. PLACE REINFORCEMENT 3" CLEAR FROM BOTTOM OF FOOTING EXCEPT WHERE DIMENSIONED OTHERWISE
4. RE: SPECIFIC SECTIONS FOR FOOTINGS NOT INCLUDED IN SCHEDULE
5. SEE PLAN VIEW 3/S400 FOR TRANSVERSE REBAR PLACEMENT LAYOUT



three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot
one eighth inch = one foot

- MAIN FLOOR PLAN NOTES**
1. (XX) - DENOTES STRUCTURAL KEYNOTES, SEE DRAWING S030
 2. CONTRACTOR TO VERIFY ALL DIMENSIONS, AND NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES; CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION OF NEW MATERIALS AND CONSTRUCTION
 3. LX - DENOTES MASONRY LOAD BEARING LINTELS, SEE SCHEDULE ON DRAWING S620 FOR LINTEL REQUIREMENTS
 4. LOOSE LINTELS FOR BRICK VENEER, SEE DETAIL DRAWING S620
 5. FOR CONCRETE CONSTRUCTION DETAILS, SEE DRAWING S600
 6. FOR PRECAST CONSTRUCTION DETAILS, SEE DRAWING S610
 7. FOR MASONRY CONSTRUCTION DETAILS, SEE DRAWING S620
 8. PRECAST SUPPLIER TO INCORPORATE SPECIAL LOADS SPECIFIED ON DRAWING S203



1 MAIN FLOOR FRAMING PLAN
SCALE: 3/4" = 1'-0"

2 SECTION AT CORRIDOR WALL OPENING
SCALE: 3/4" = 1'-0"

CONSTRUCTION DOCUMENTS 100%

NO.	REVISION	DATE

Alexandria
525 Broadway Street
Alexandria, MN 56308
phone 320.759.9300
facsimile 320.759.9062
www.jlgarchitects.com
copyright © 2014

STAMPED:
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATIONS, OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A QUALIFIED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Brian L. Aschle
DATE: 04.01.15
BY: BLS
REV: N/A

DRAWING TITLE	
MAIN FLOOR FRAMING PLAN	

PROJECT TITLE	CONSTRUCT NEW IT CENTER FOR HEALTHCARE TECHNOLOGY MANAGEMENT EXPANSION
BUILDING No.	BA
DRAWN	AW

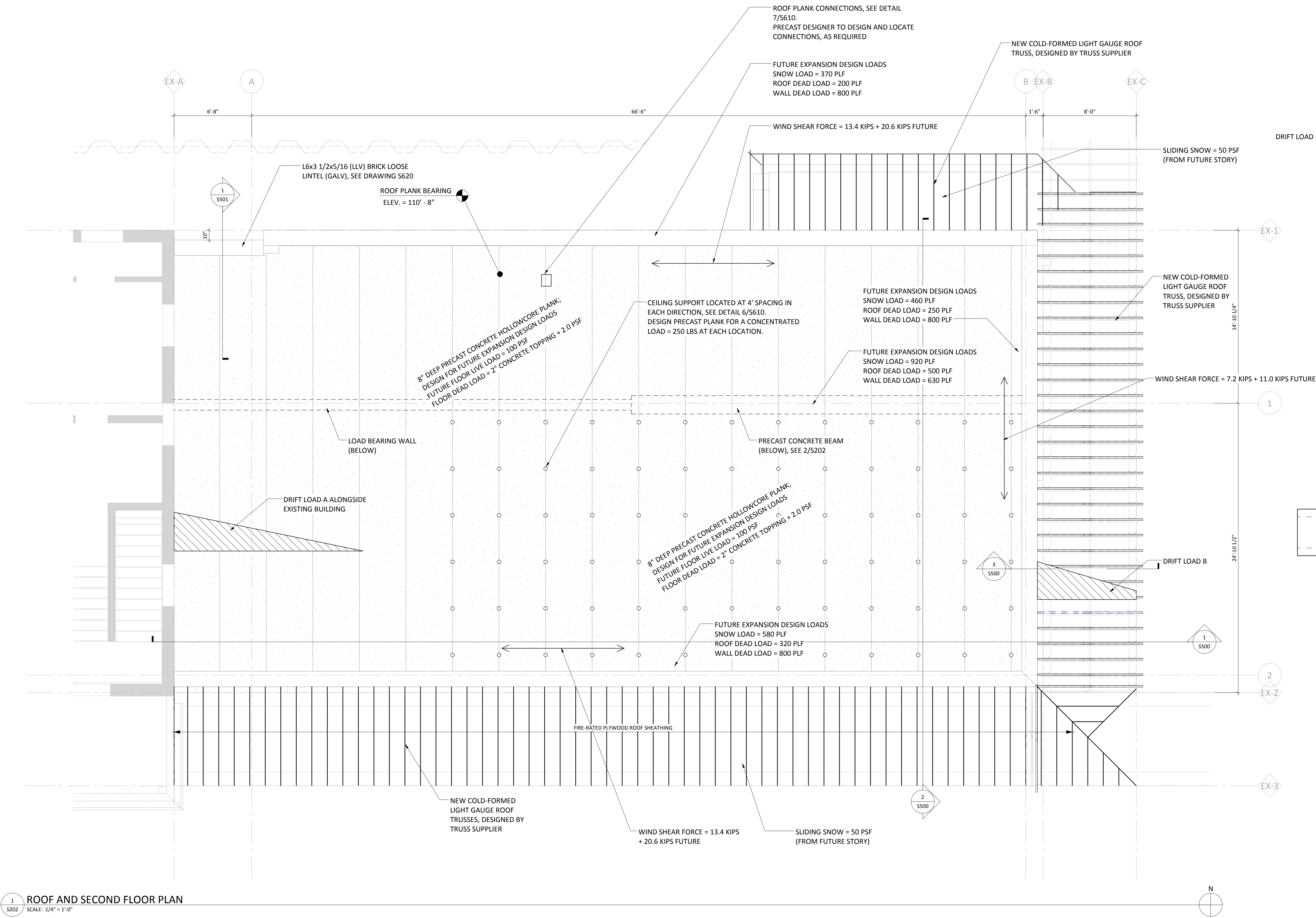
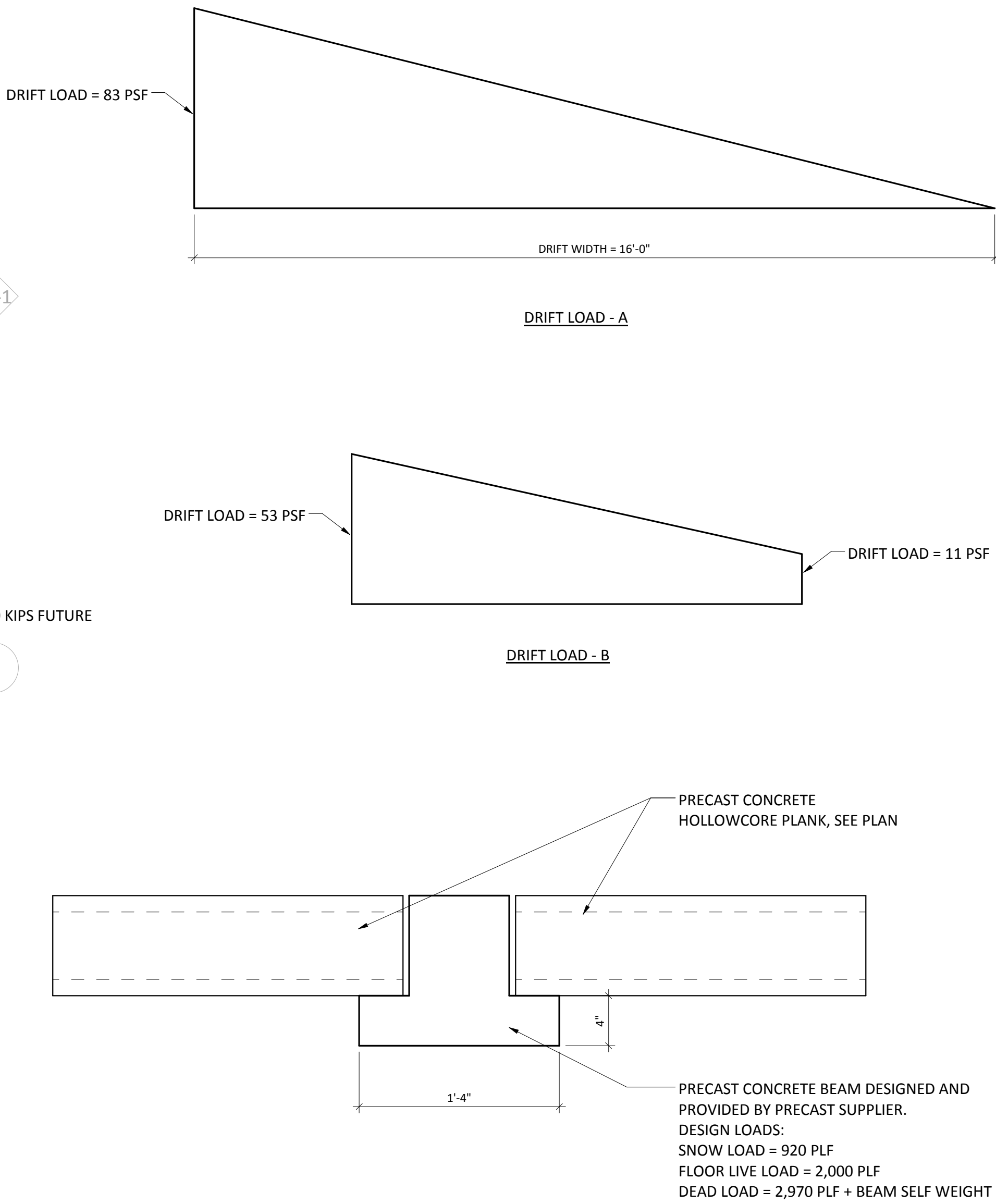
DATE	04.01.15
PROJECT NO.	656-14246
DRAWING NO.	S201
REV.	2 of XX

St. Cloud VA Health Care System
Brainerd | Montevideo | Alexandria

three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot
one eighth inch = one foot

ROOF PLAN NOTES

1. (XX) - DENOTES STRUCTURAL KEYNOTES, SEE DRAWING S030
2. CONTRACTOR TO VERIFY ALL DIMENSIONS, AND NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS PRIOR TO FABRICATION OF NEW MATERIALS AND CONSTRUCTION
3. TBE - DENOTES TOP OF BEAM ELEVATION
4. FOR CONCRETE CONSTRUCTION DETAILS, SEE DRAWING S600
5. PRECAST SUPPLIER TO INCORPORATE SPECIAL LOADS SPECIFIED ON DRAWING S203



CONSTRUCTION DOCUMENTS 100%

REVISION		DATE
No.		

Alexandria
525 Broadway Street
Alexandria, MN 56308
phone 320.759.9030
facsimile 320.759.9062
www.jlgarchitects.com
copyright © 2014

STAMPED:
I HEREBY CERTIFY THAT THIS PLAN,
SPECIFICATION OR REPORT WAS PREPARED BY
OR UNDER THE CLOSE PERSONAL SUPERVISION AND
DIRECT OF A QUALIFIED PROFESSIONAL ENGINEER
LICENSED IN THE STATE OF MINNESOTA.

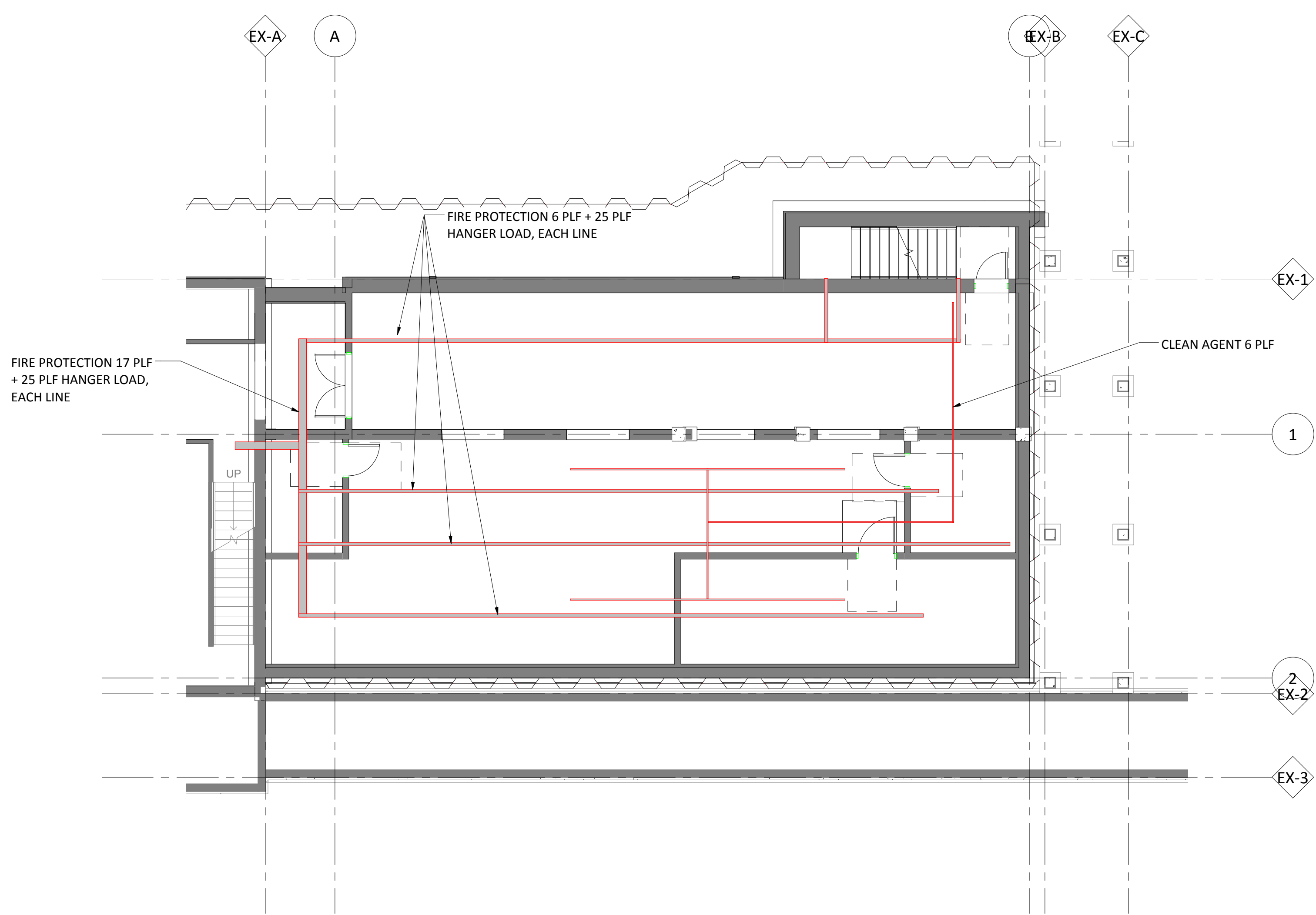
Brian L. Rasche, P.E.
DATE: 04.01.15
REV. NO.

PROJECT TITLE ROOF FRAMING PLAN		DATE 04.01.15	
PROJECT TITLE CONSTRUCT NEW IT CENTER FOR HEALTHCARE TECHNOLOGY MANAGEMENT EXPANSION		PROJECT NO. 656-14246	
BUILDING No. BA	DRAWN AW	CAD FILE XXX	DRAWING NO. S202 (REV. 2 OF XX)
LOCATION VA MEDICAL CENTER ST. CLOUD, MN 56303			

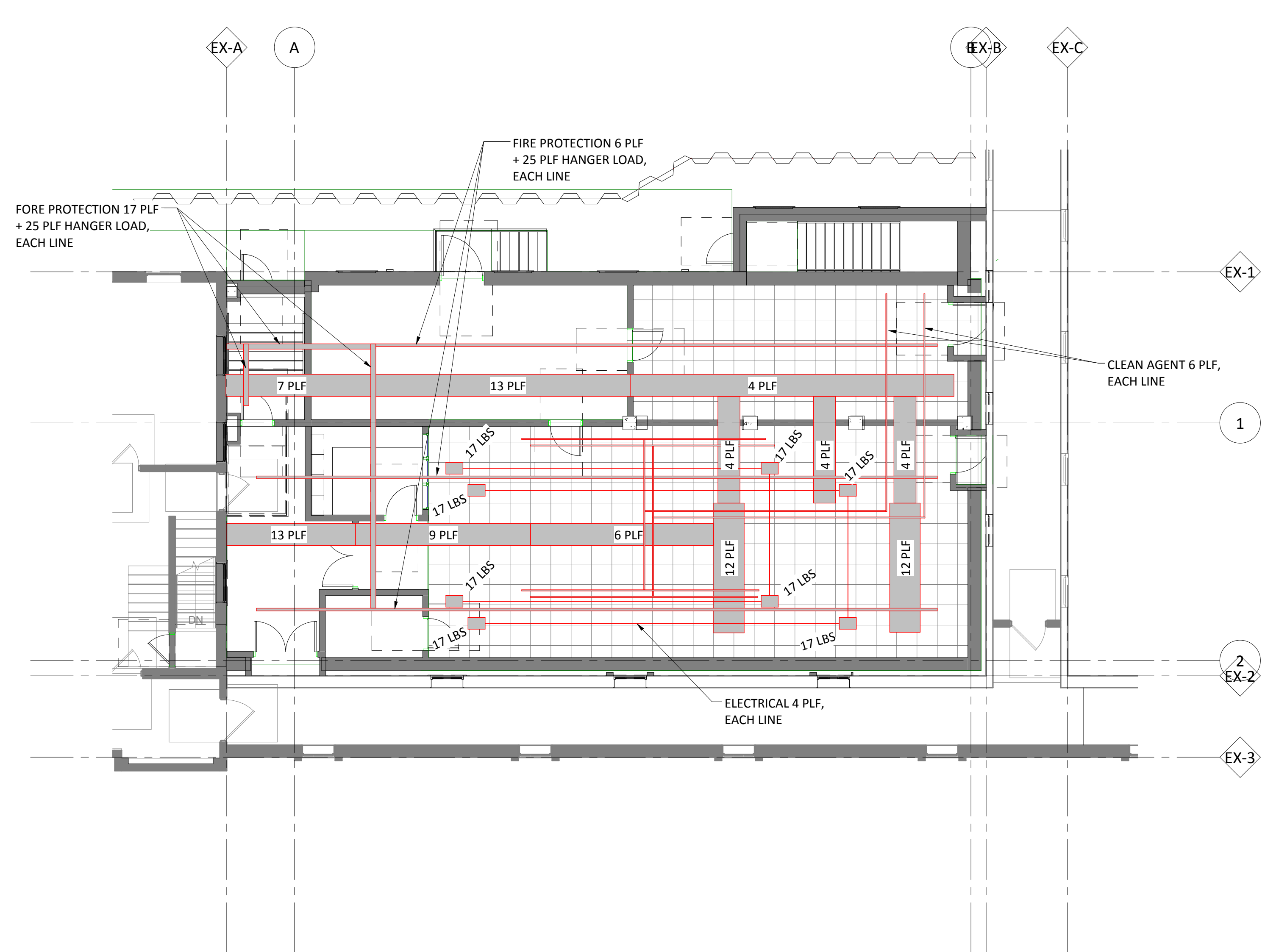
St. Cloud VA Health Care System
Brainerd | Montevideo | Alexandria

three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot

A
B
C
D
E
F



1 LOWER LEVEL CEILING LOAD PLAN
SCALE: 1/8" = 1'-0"



2 FIRST FLOOR CEILING LOAD PLAN
SCALE: 1/8" = 1'-0"

NOTE: EQUIPMENT LOADS SHOWN ARE SUPPORTED BY PRECAST MEMBERS ABOVE. PRECAST SUPPLIER TO INCORPORATE THESE LOADS IN PRECAST DESIGN.

CONSTRUCTION DOCUMENTS 100%

NO.	REVISION	DATE

VA FORM 08-6231



Alexandria
525 Broadway Street
Alexandria, MN 56308
phone 320.759.9030
facsimile 320.759.9062
www.jlgarchitects.com
copyright © 2013

STAMPED:
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATIONS OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A QUALIFIED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
Brian J. Roche
BRIAN J. ROCHE, P.E.
DATE: 04.01.15
REV. NO. 1

DRAWING TITLE
SPECIAL LOAD PLAN

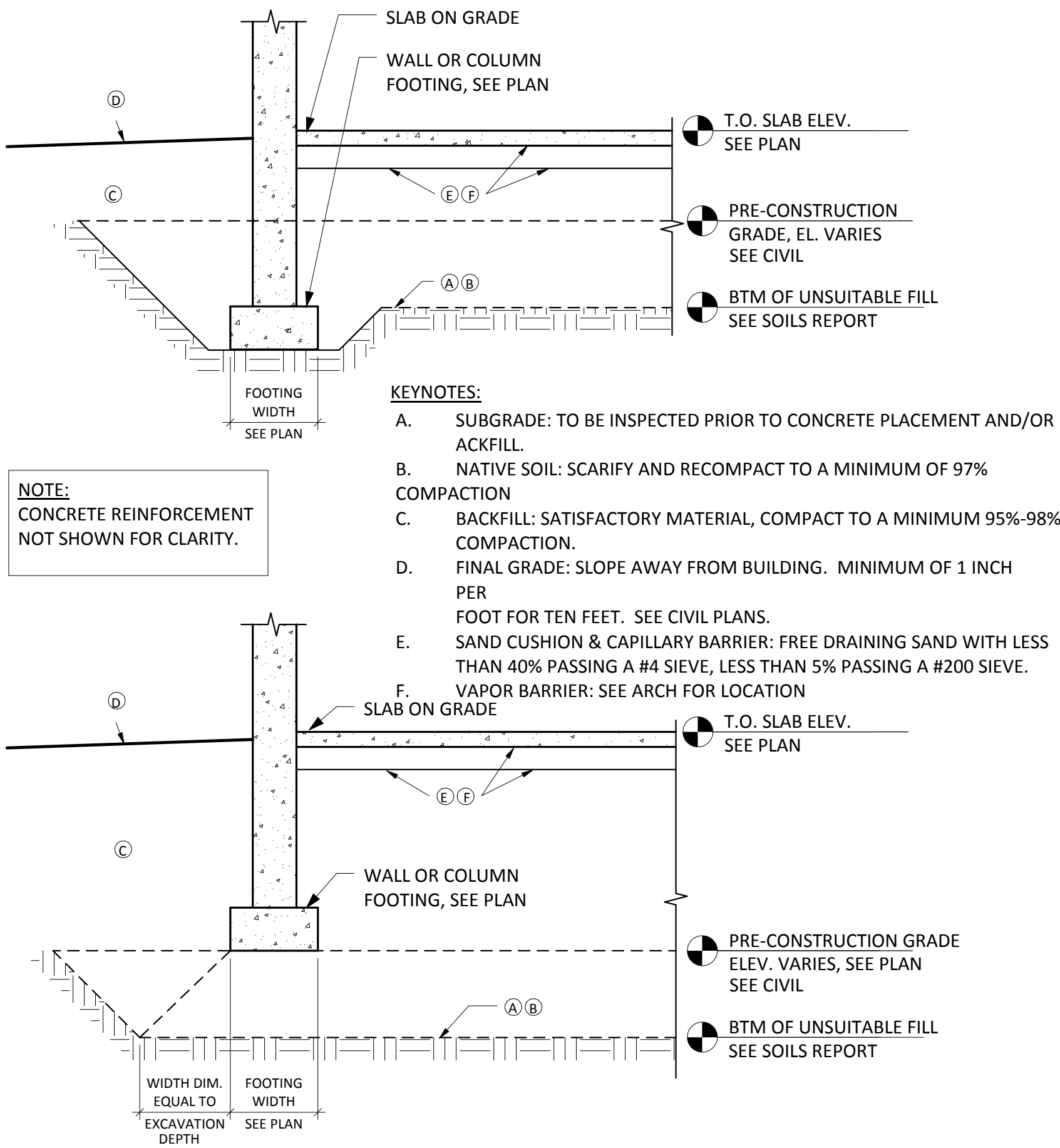
PROJECT TITLE
CONSTRUCT NEW IT CENTER FOR HEALTHCARE TECHNOLOGY MANAGEMENT EXPANSION

DATE
04.01.15
PROJECT NO.
656-14246

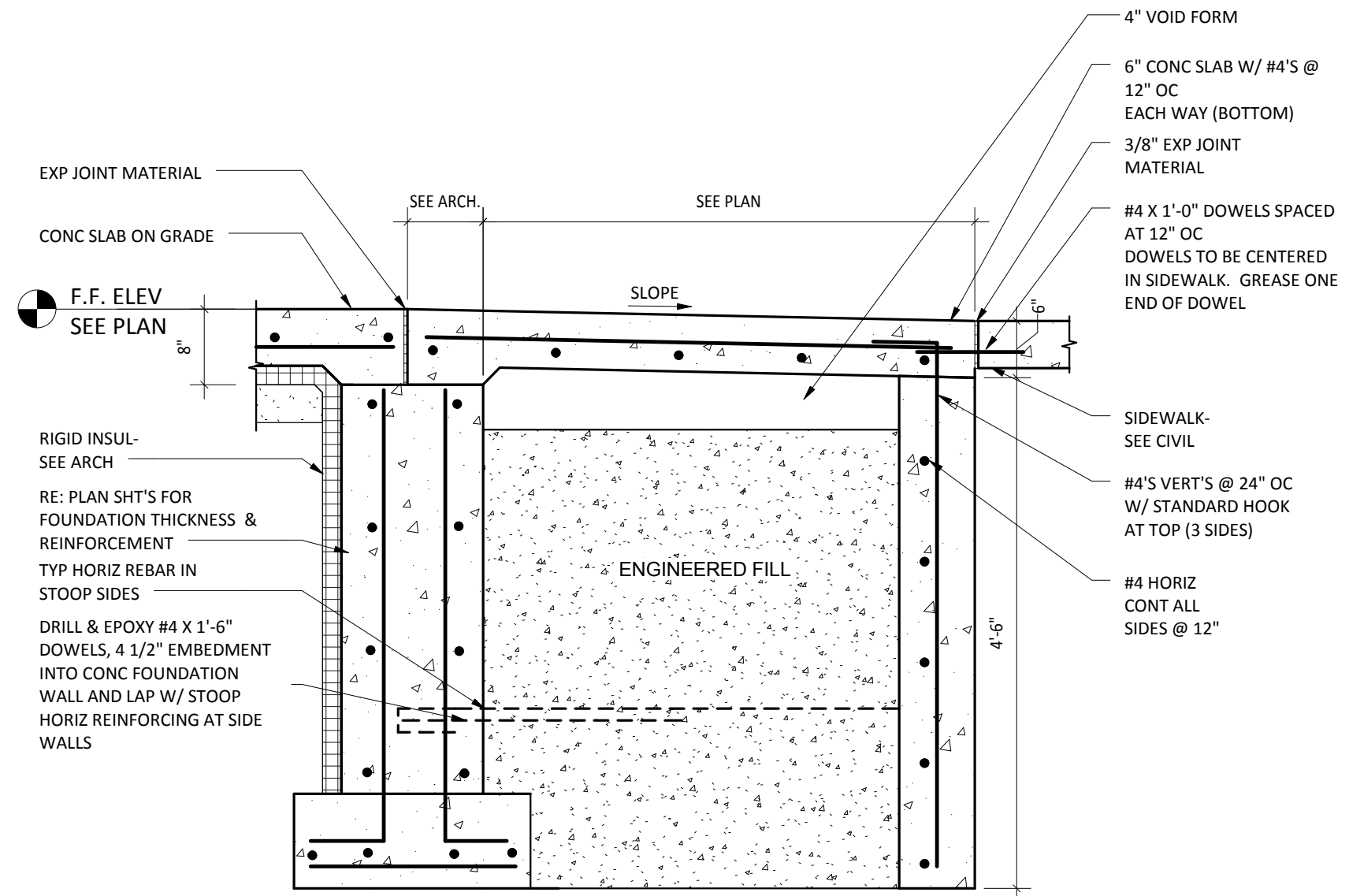
BUILDING NO.
BLA
CHECKED BY
ALW
DRAWING NO.
S203
REV. NO. 1

LOCATION
VA MEDICAL CENTER
ST. CLOUD, MN 56303

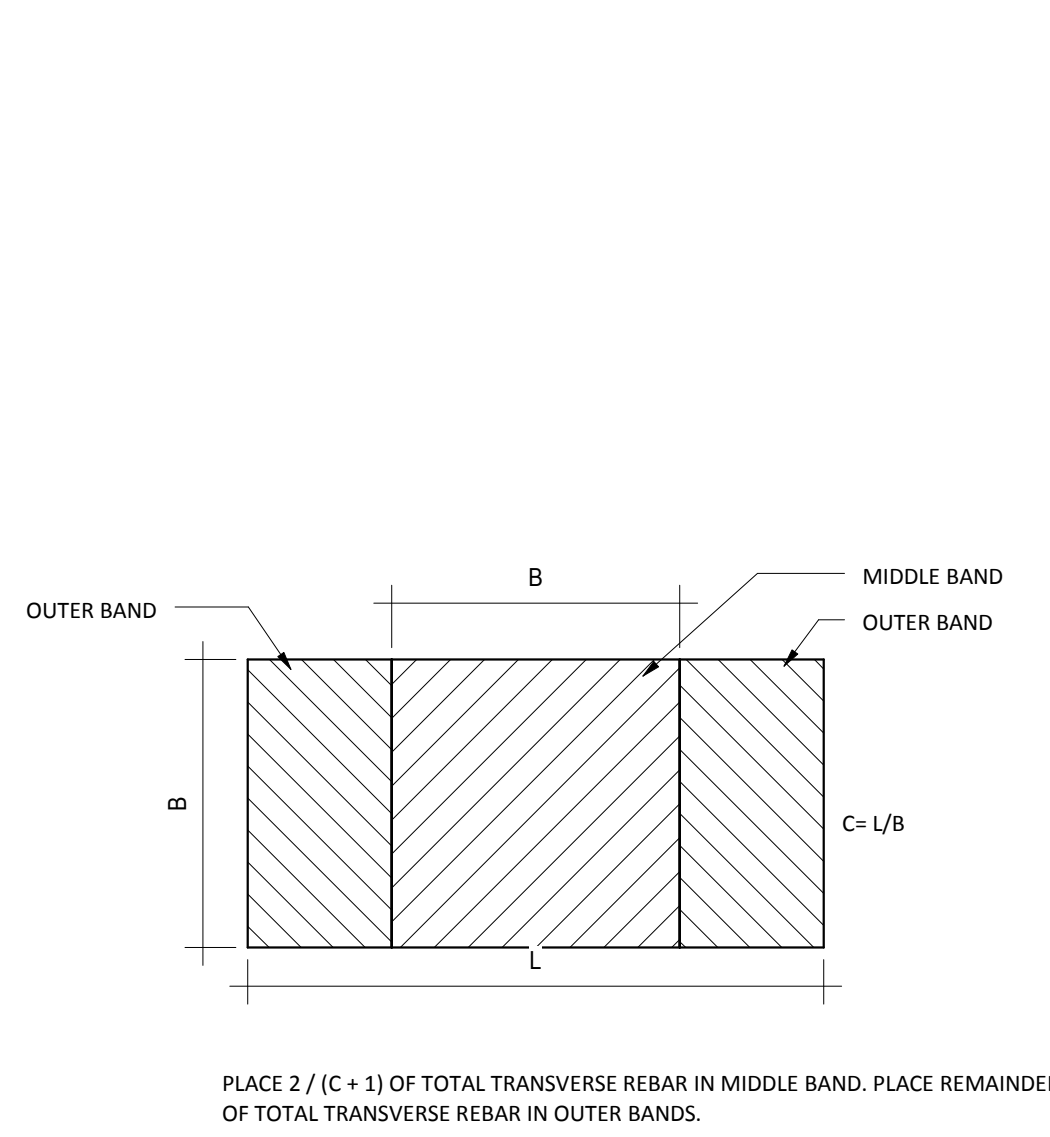




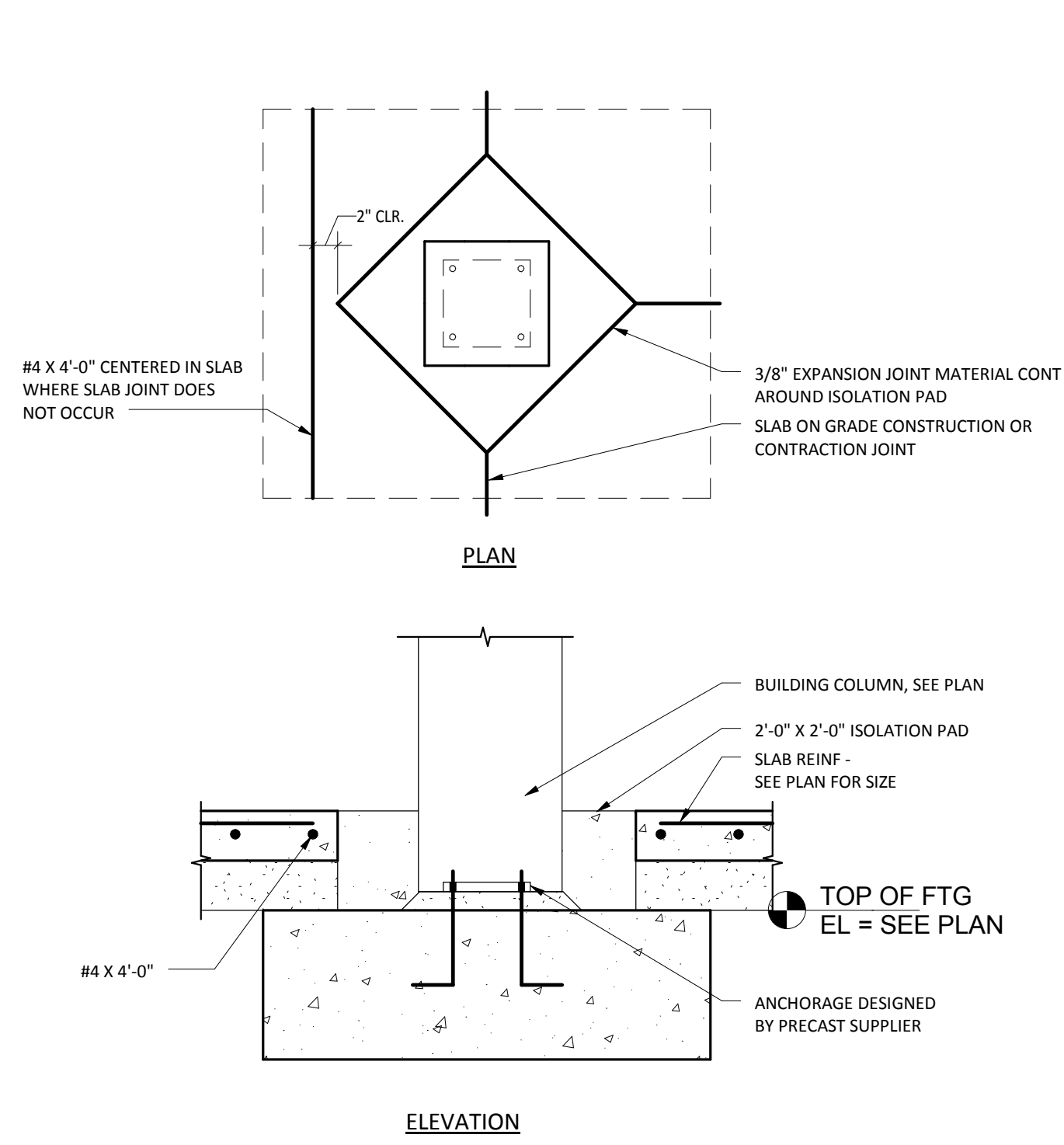
1 TYP. FOOTING & SLAB-ON-GRADE DETAIL
SCALE: NONE



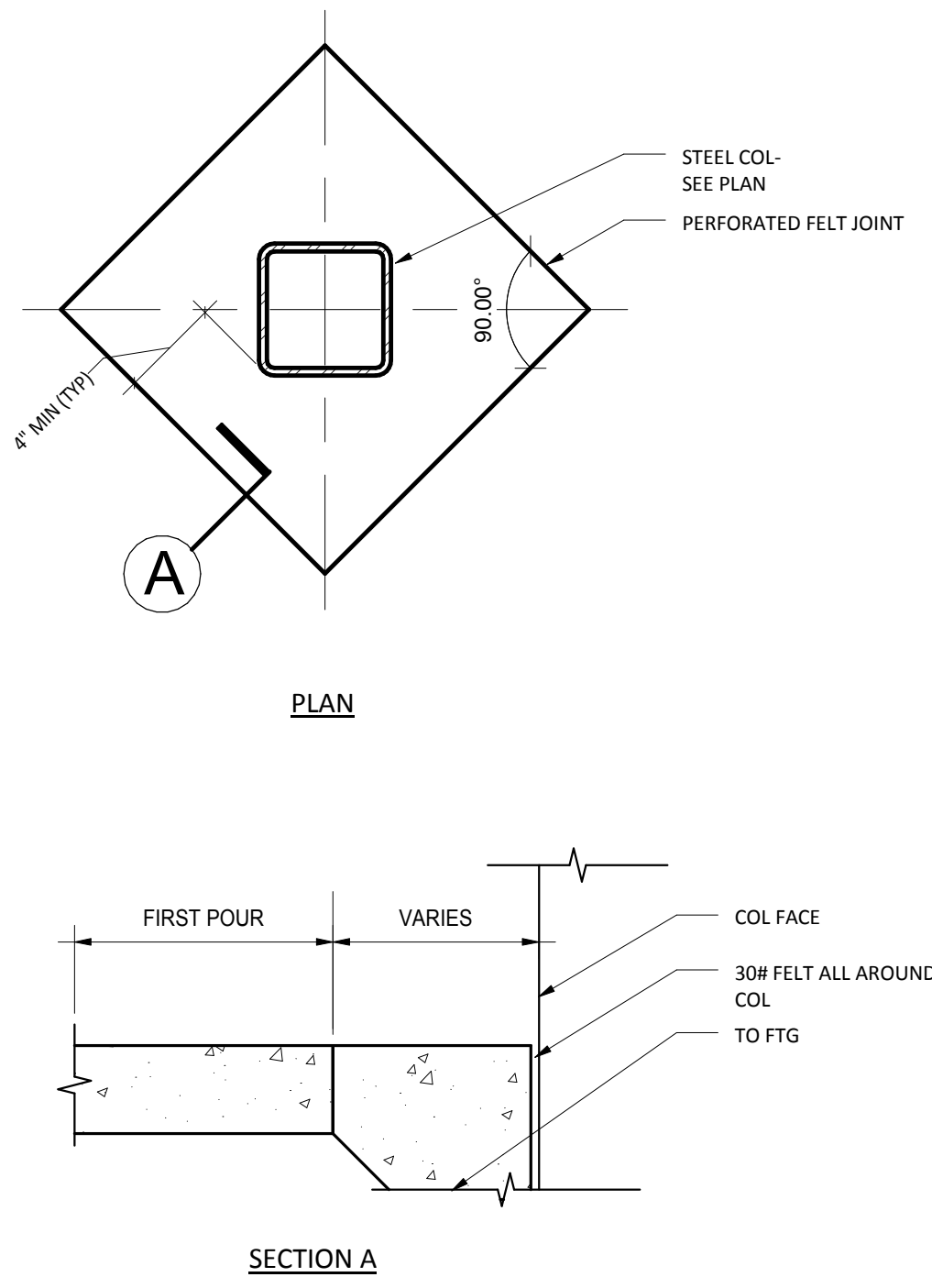
2 CONCRETE STOOP SECTION
SCALE: NONE



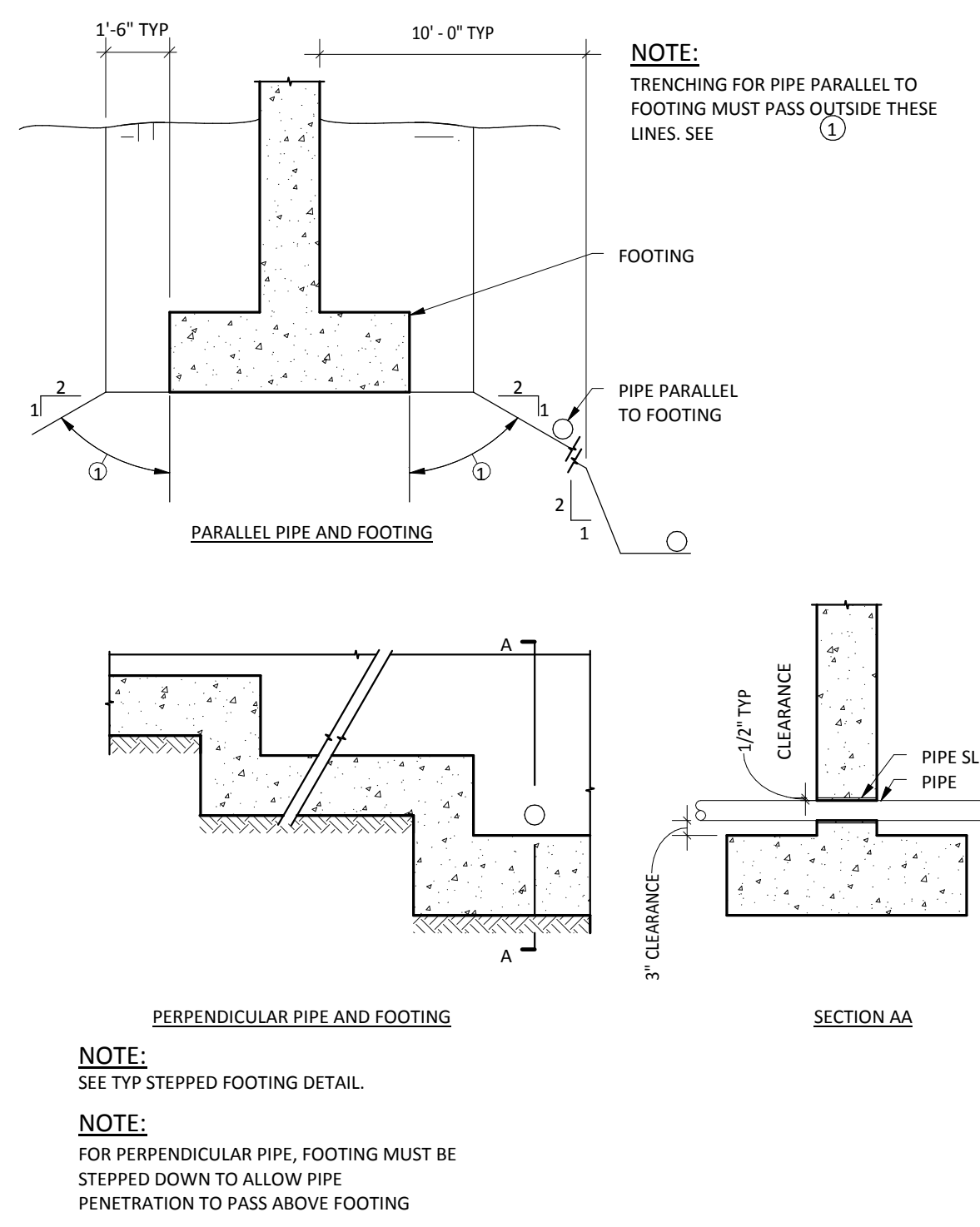
3 TRANSVERSE REBAR LAYOUT
SCALE: NONE



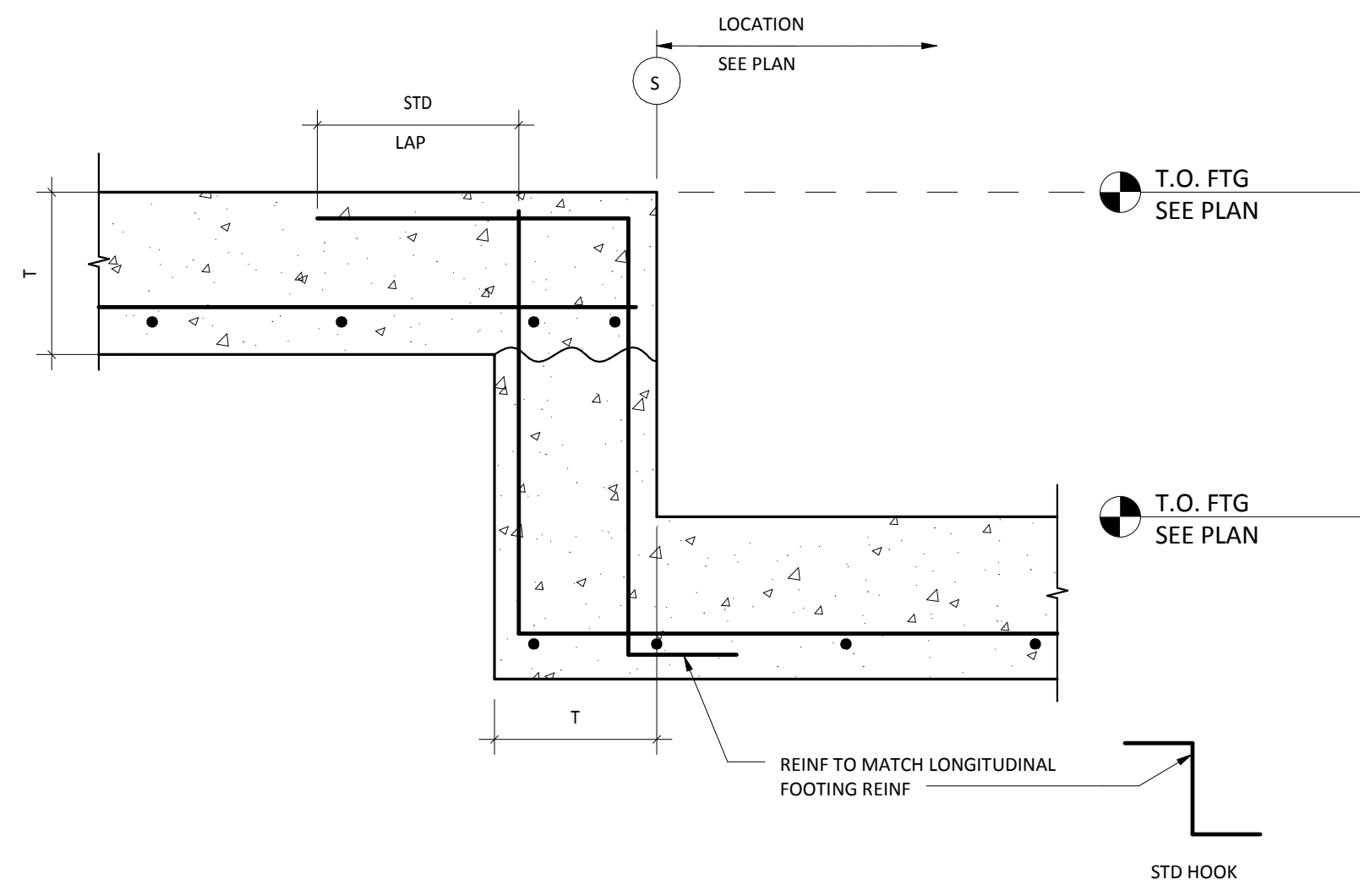
5 INTERIOR COLUMN FOOTINGS
SCALE: NONE



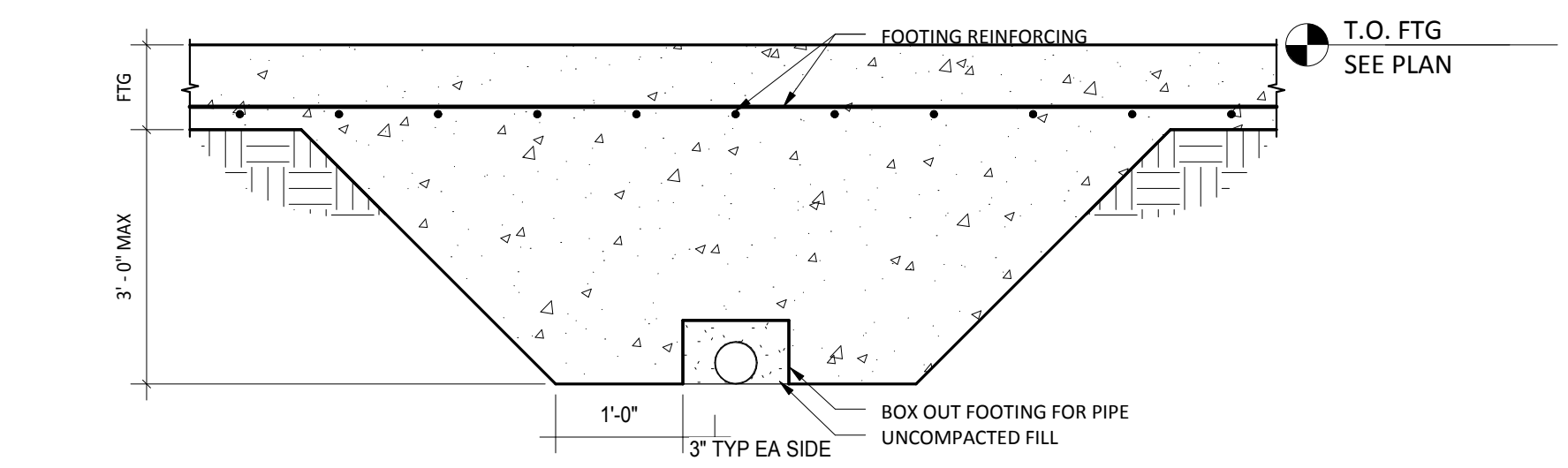
6 TYP. FLOOR ISO JOINT @ COL.
SCALE: NONE



7 TYP. BURIED PIPE AT FOOTING
SCALE: NONE



8 STEPPED FOOTING
SCALE: NONE

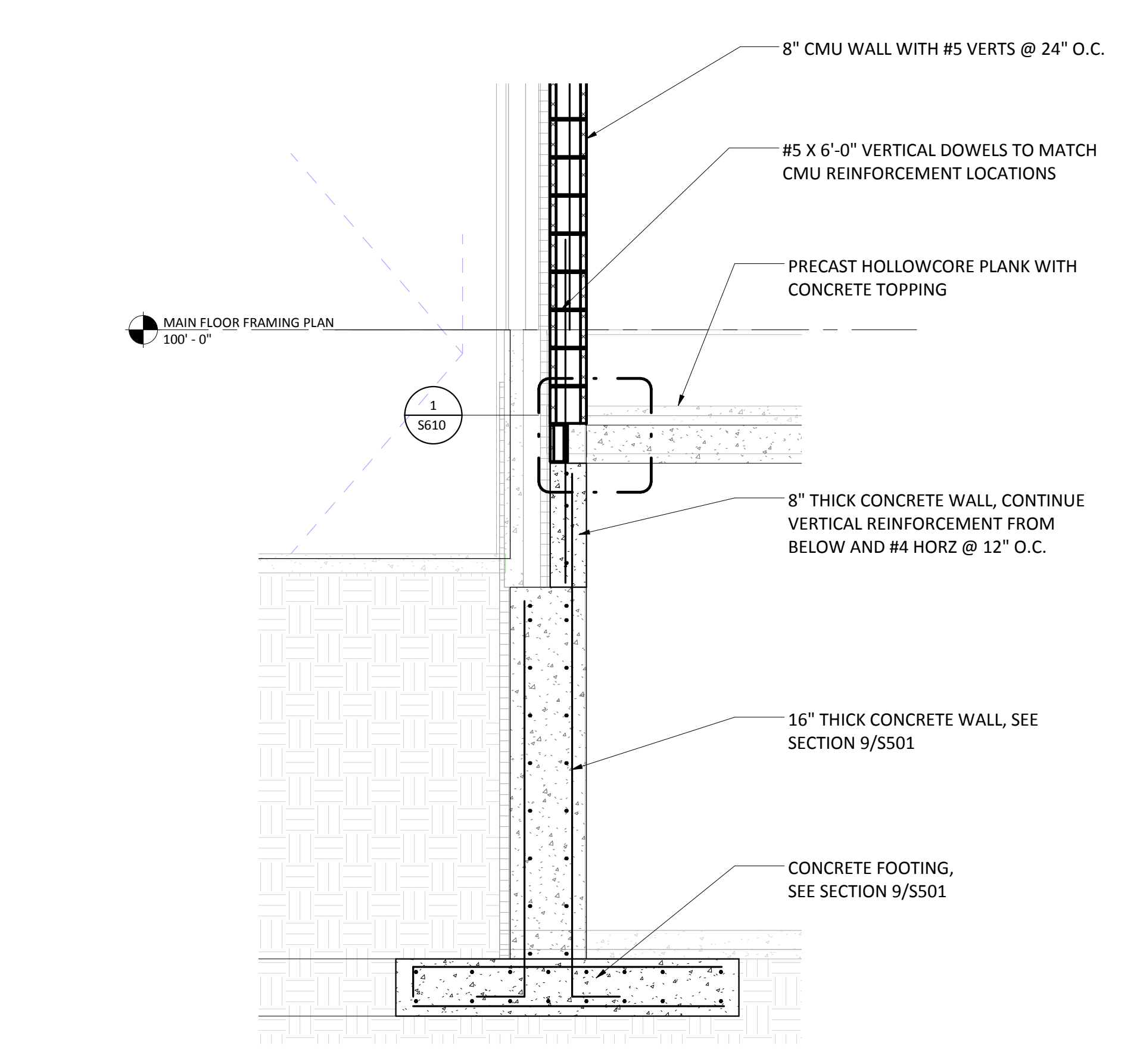
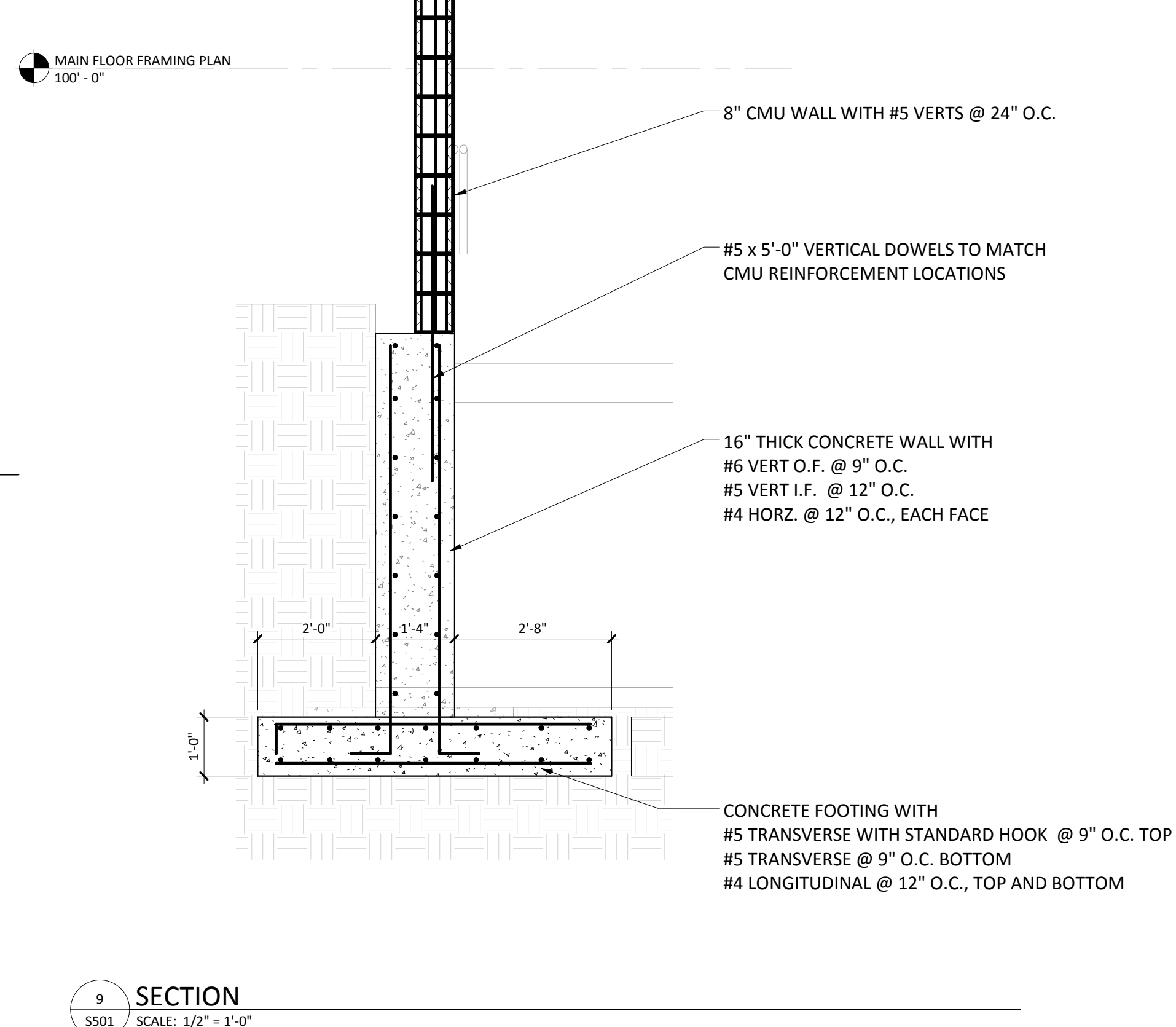
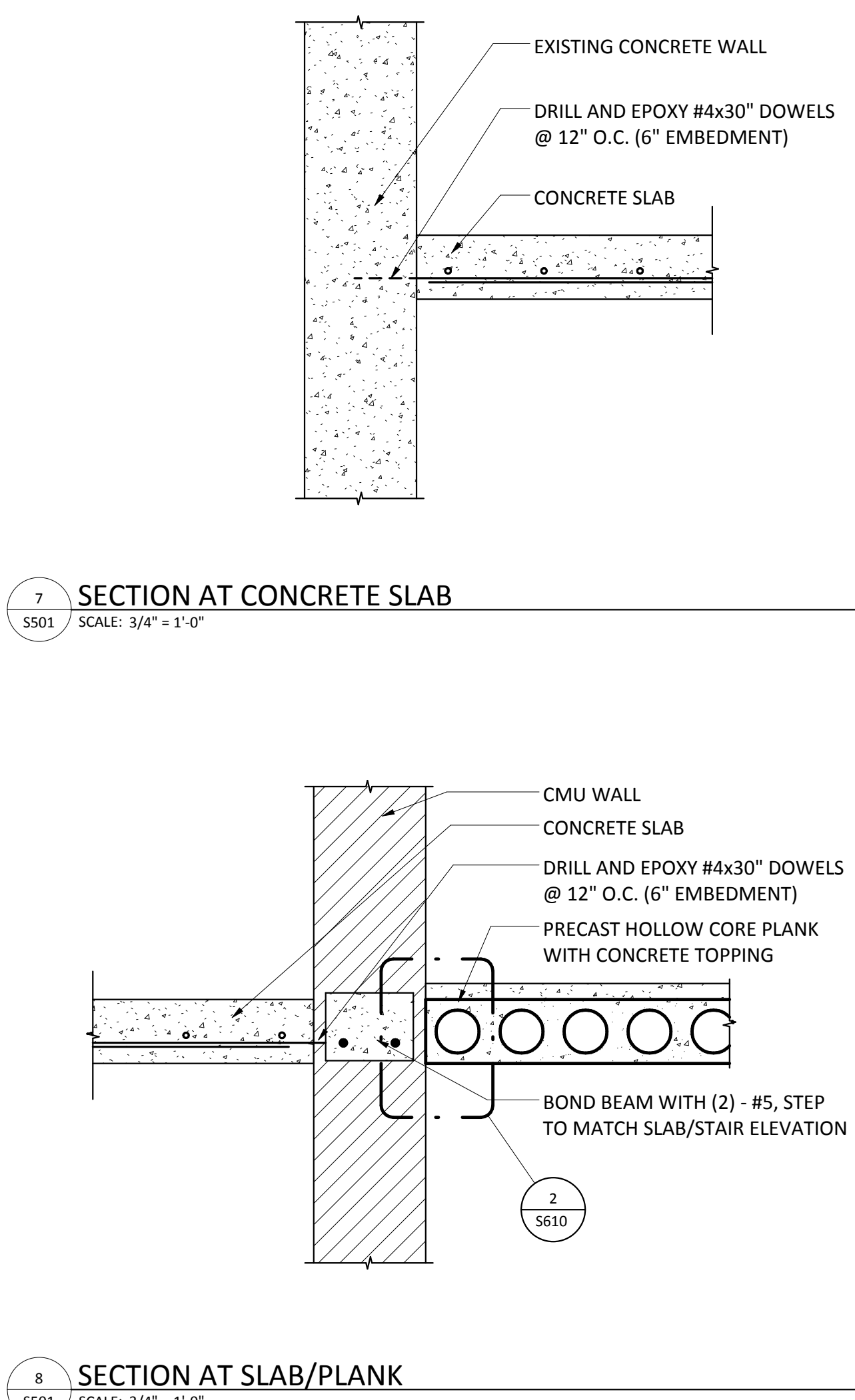
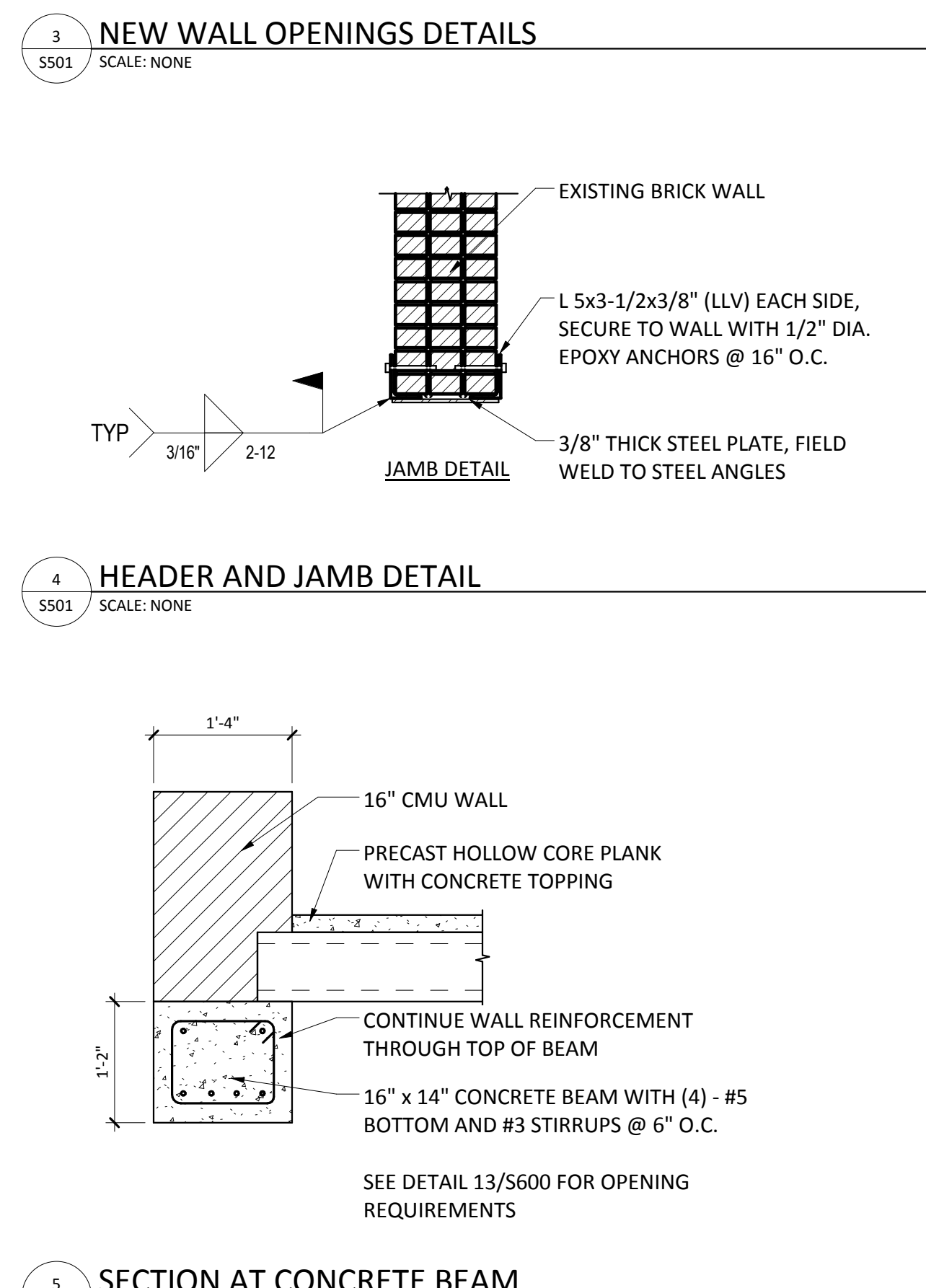
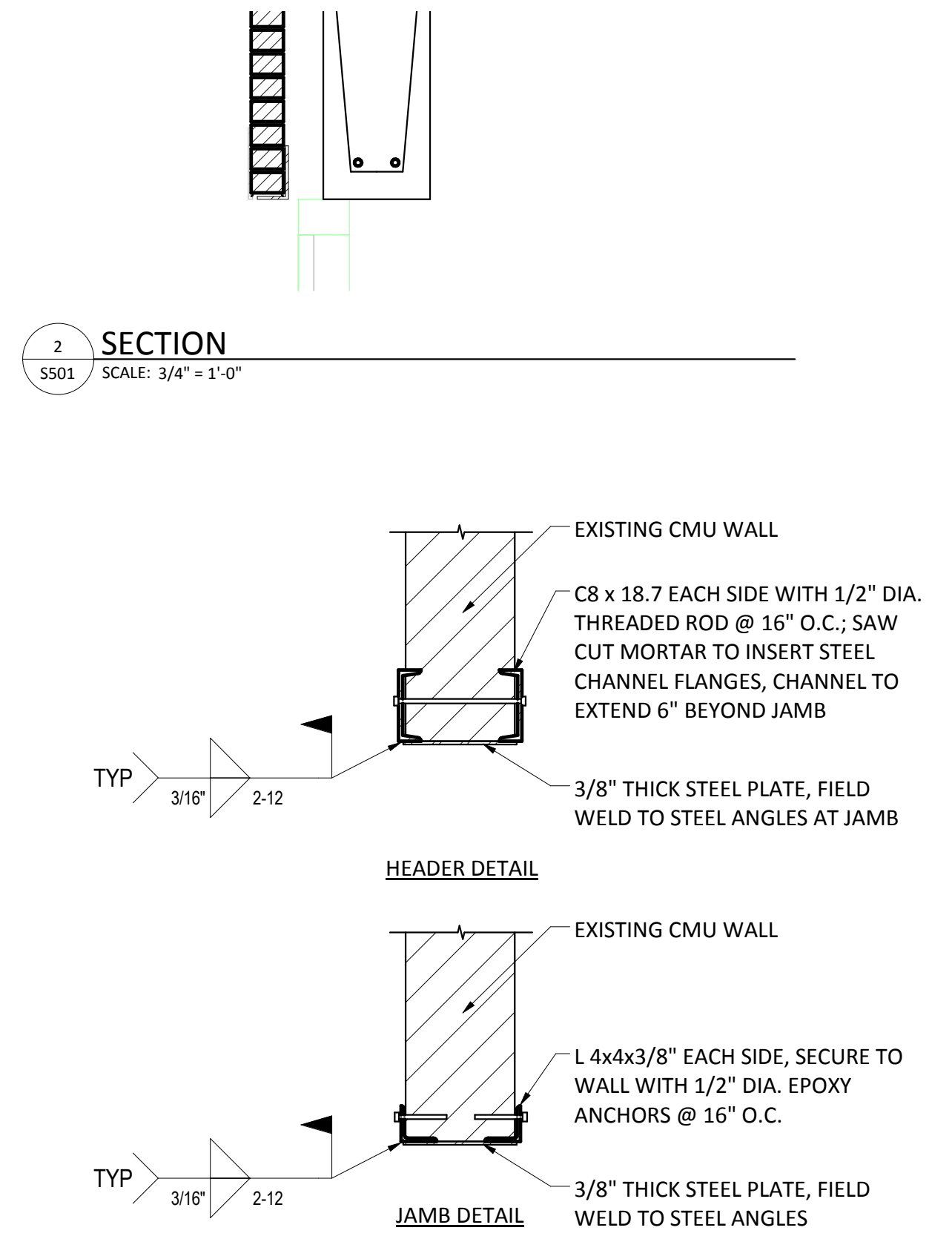
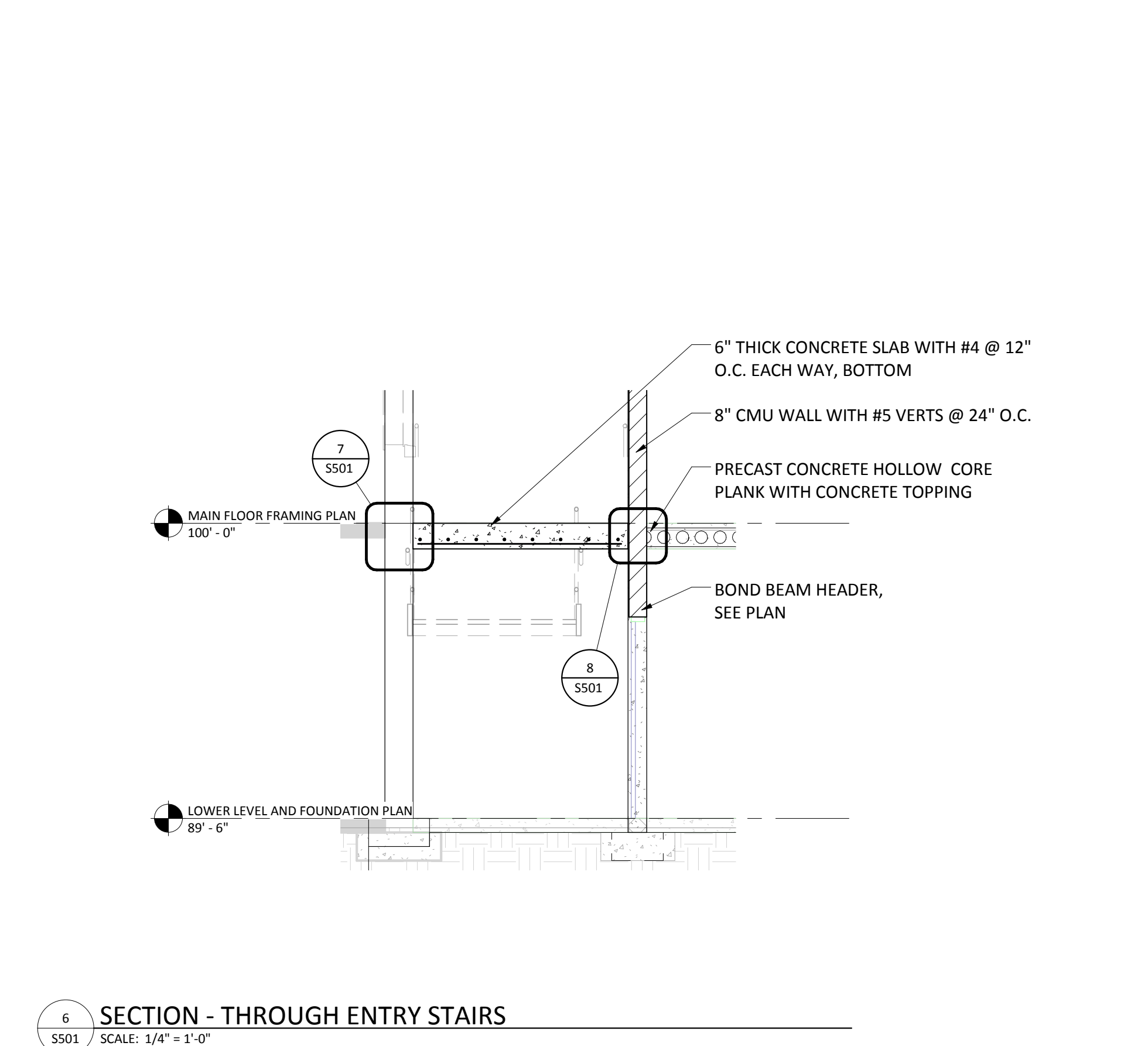
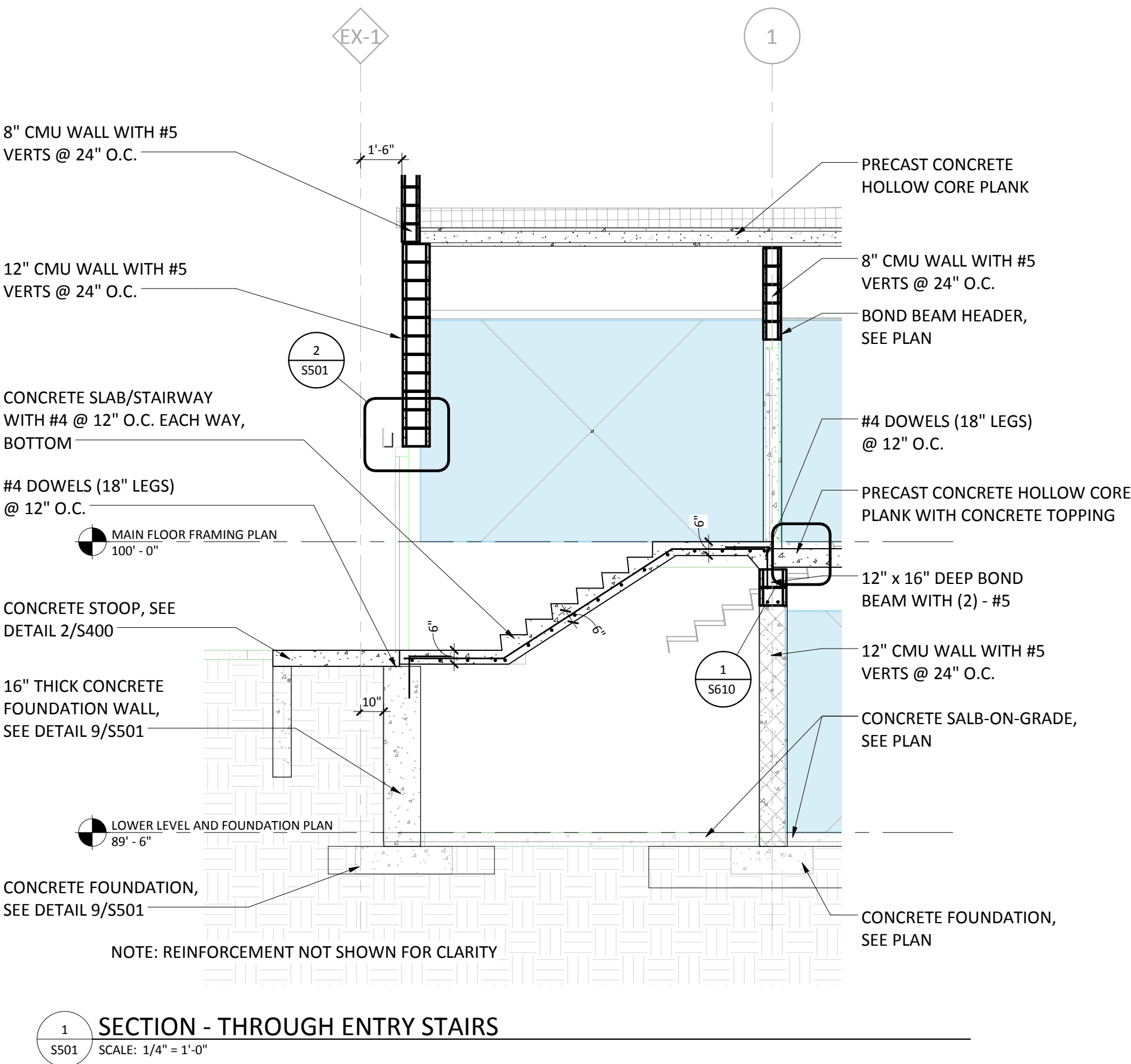


9 DROPPED FOOTING
SCALE: NONE

CONSTRUCTION DOCUMENTS 100%

No	REVISION	DATE	JLG architects	Alexandria 525 Broadway Street Alexandria, MN 56308 phone 320.759.9300 fax 320.759.9302 www.jlgarchitects.com copyright © 2013	STANDARD: I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATIONS OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A QUALIFIED PROFESSIONAL ENGINEER UNDER THE JURISDICTION OF THE STATE OF MINNESOTA. Bryan L. Asche, P.E. DATE: 04.01.15	DRAWING TITLE FOUNDATION SECTIONS & DETAILS	PROJECT TITLE CONSTRUCT NEW IT CENTER FOR HEALTHCARE TECHNOLOGY MANAGEMENT EXPANSION	DATE 04.01.15 PROJECT NO. 656-14246	SHEET NO. XXX	DRAWING NO. S400 (REV. 2 OF XX)	St. Cloud VA Health Care System Brainerd Montevideo Alexandria

three inches = one foot
one and one half inches = one foot
one inch = one foot
one half inch = one foot
three quarters inch = one foot
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot



CONSTRUCTION DOCUMENTS 100%

No	REVISION	DATE

VA FORM 08-6231



Alexandria
525 Broadway Street
Alexandria, MN 56308
phone 320.759.9030
facsimile 320.759.9062
www.jlgarchitects.com
copyright © 2014

STANDARD:
I HEREBY CERTIFY THAT THIS PLAN,
SPECIFICATION OR REPORT WAS PREPARED BY
OR UNDER THE CLOSE PERSONAL SUPERVISION AND
CONTROL OF ME, A PROFESSIONAL ENGINEER,
AND THAT I AM A QUALIFIED PROFESSIONAL ENGINEER
UNDER THE LAWS OF THE STATE OF MINNESOTA.

DATE: 04.01.15
DRAWING NO.: S501
REV. NO.: 001, 2 of XX

DRAWING TITLE
SECTIONS

PROJECT TITLE
CONSTRUCT NEW IT CENTER
FOR HEALTHCARE
TECHNOLOGY
MANAGEMENT EXPANSION

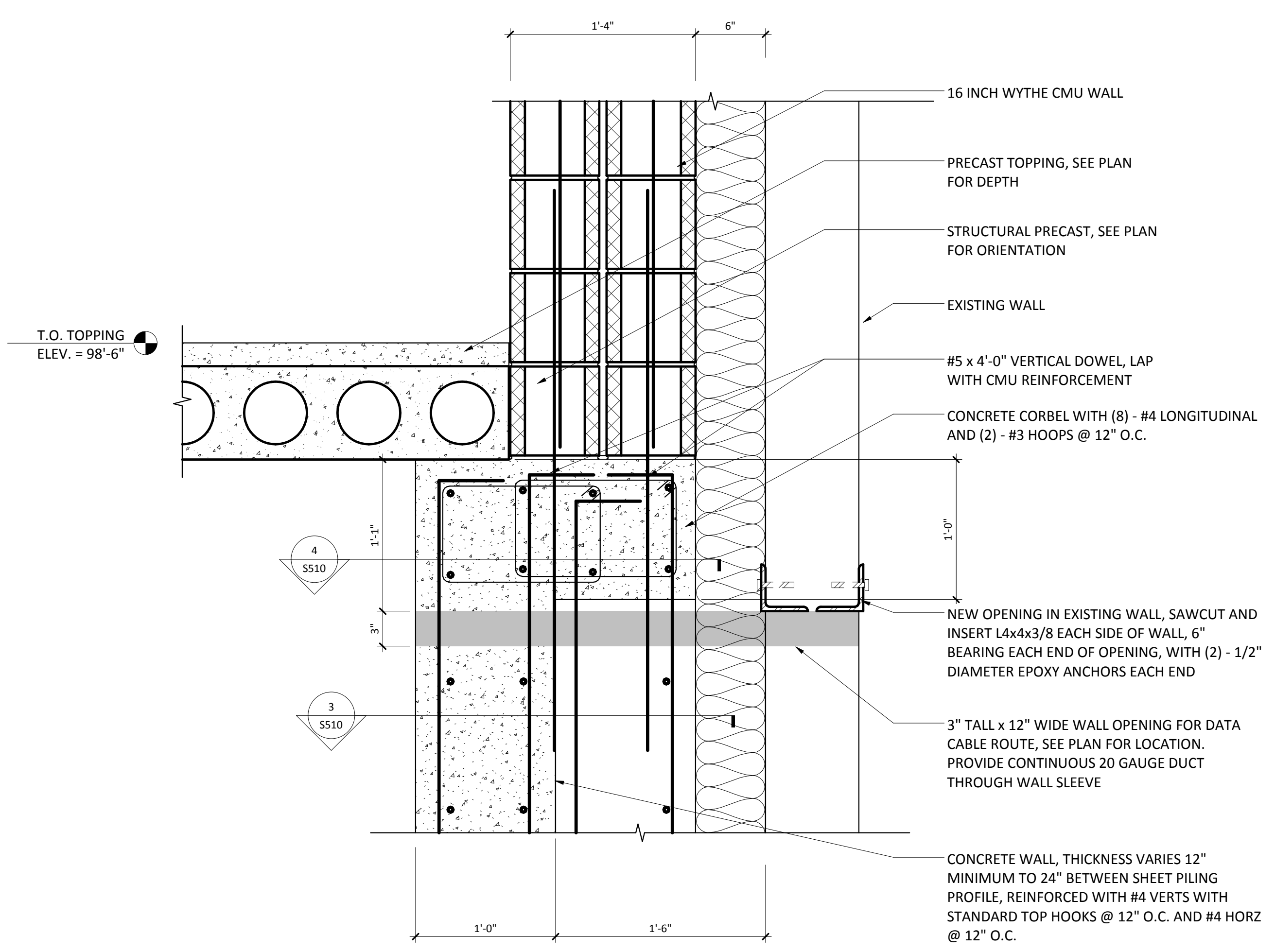
BUILDING No. BA
CHECKED BY. AW
DATE: 04.01.15

DATE: 04.01.15
PROJECT NO.: 656-14246
CADD FILE: XXX

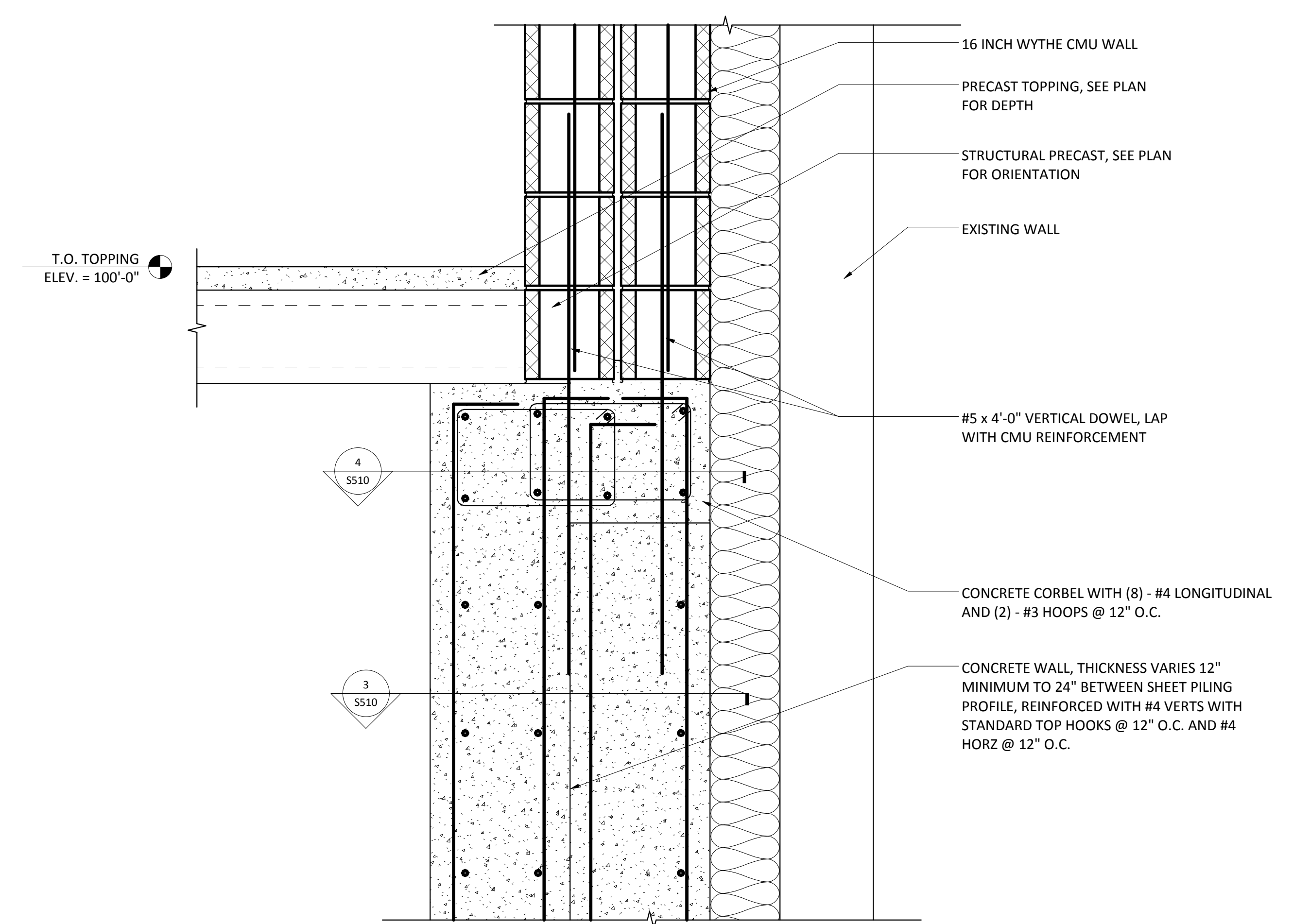
LOCATION:
VA MEDICAL CENTER
ST. CLOUD, MN 56303



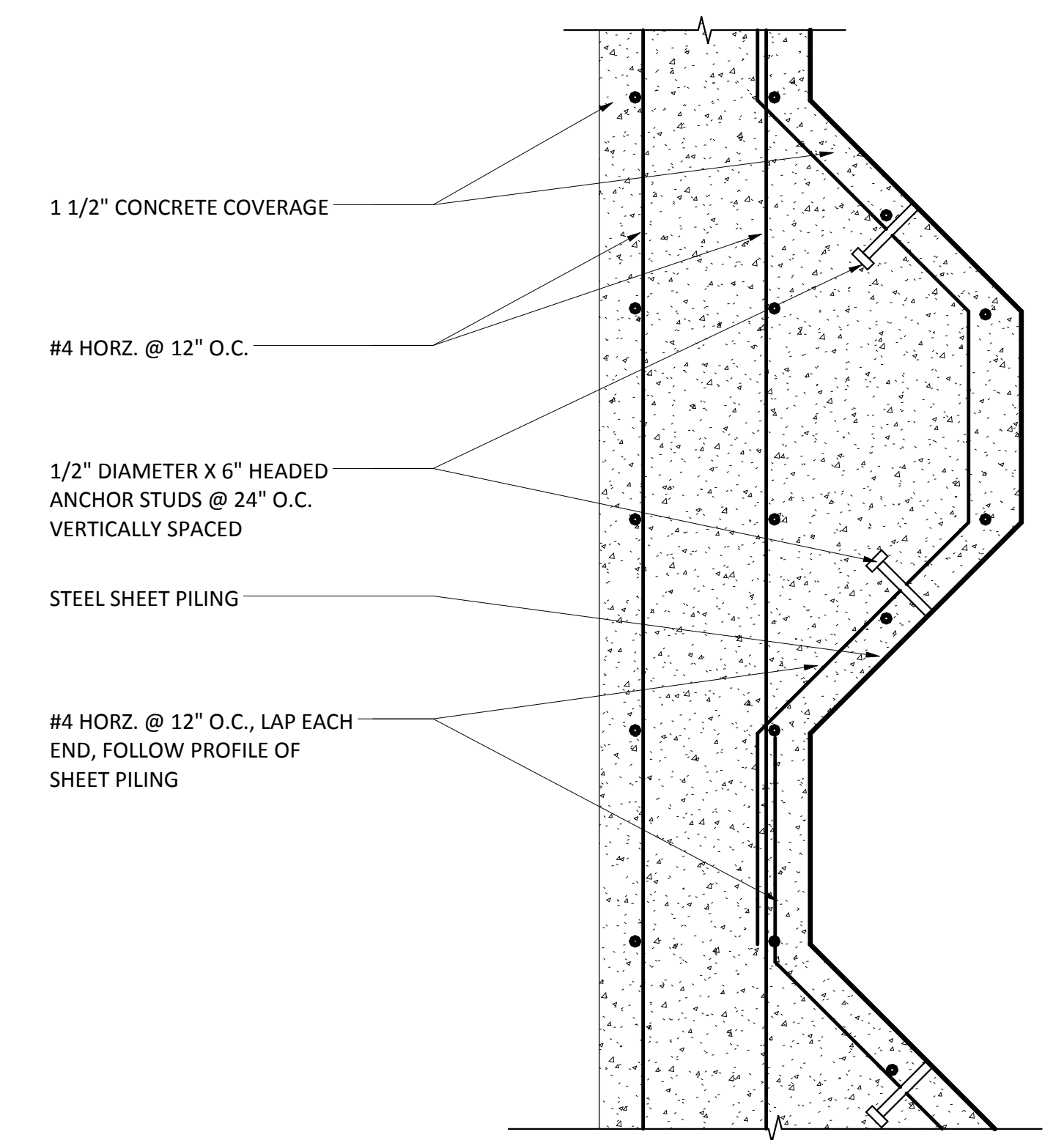
one eighth inch = one foot
one quarter inch = one foot
three eighths inch = one foot
one half inch = one foot
three quarters inch = one foot
one inch = one foot
one and one half inches = one foot
two inches = one foot
three inches = one foot



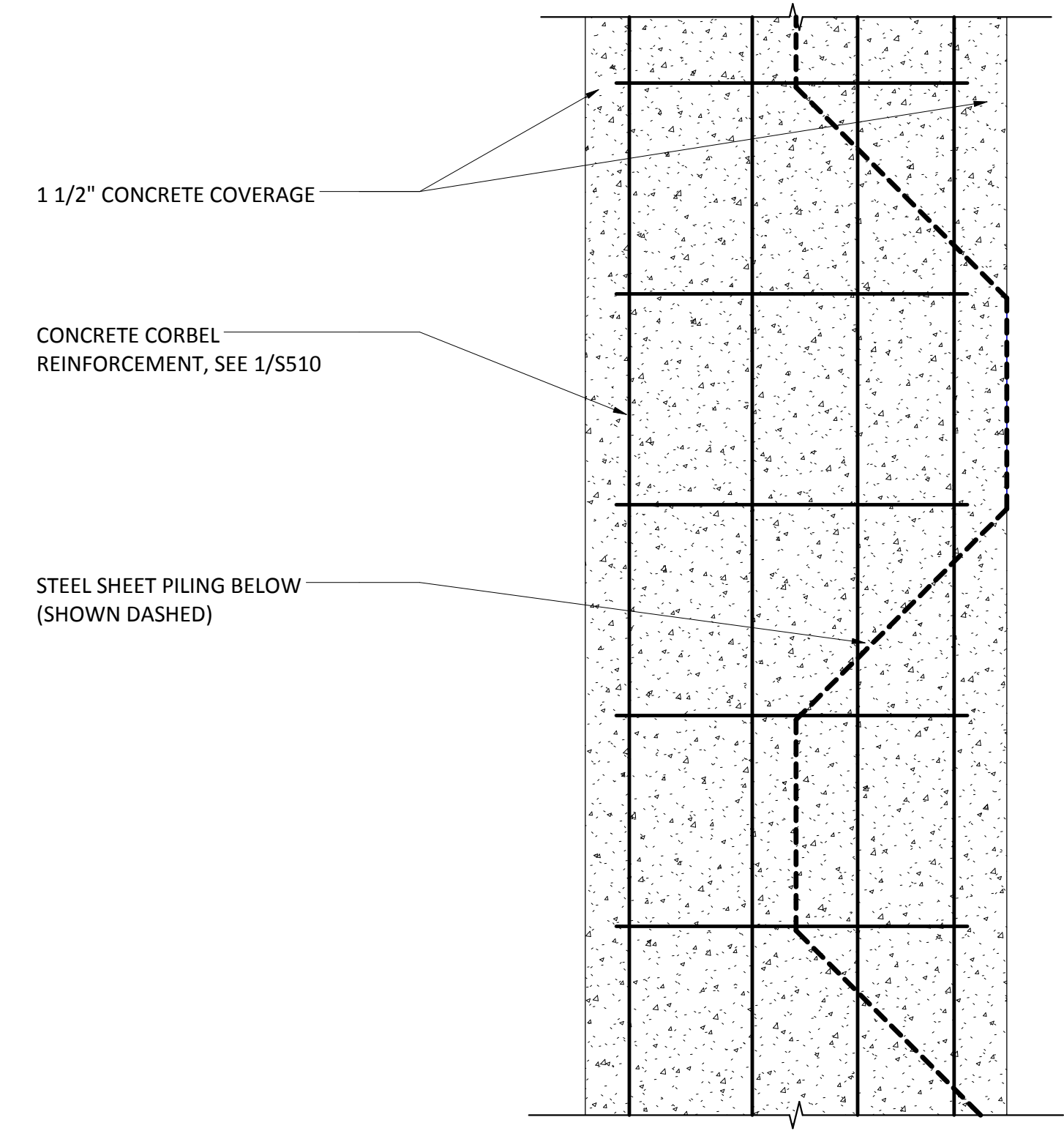
1 SECTION AT PLANK BEARING
S510 / SCALE: 1 1/2" = 1'-0"



2 SECTION AT PRECAST TO EXISTING
S510 / SCALE: 1 1/2" = 1'-0"



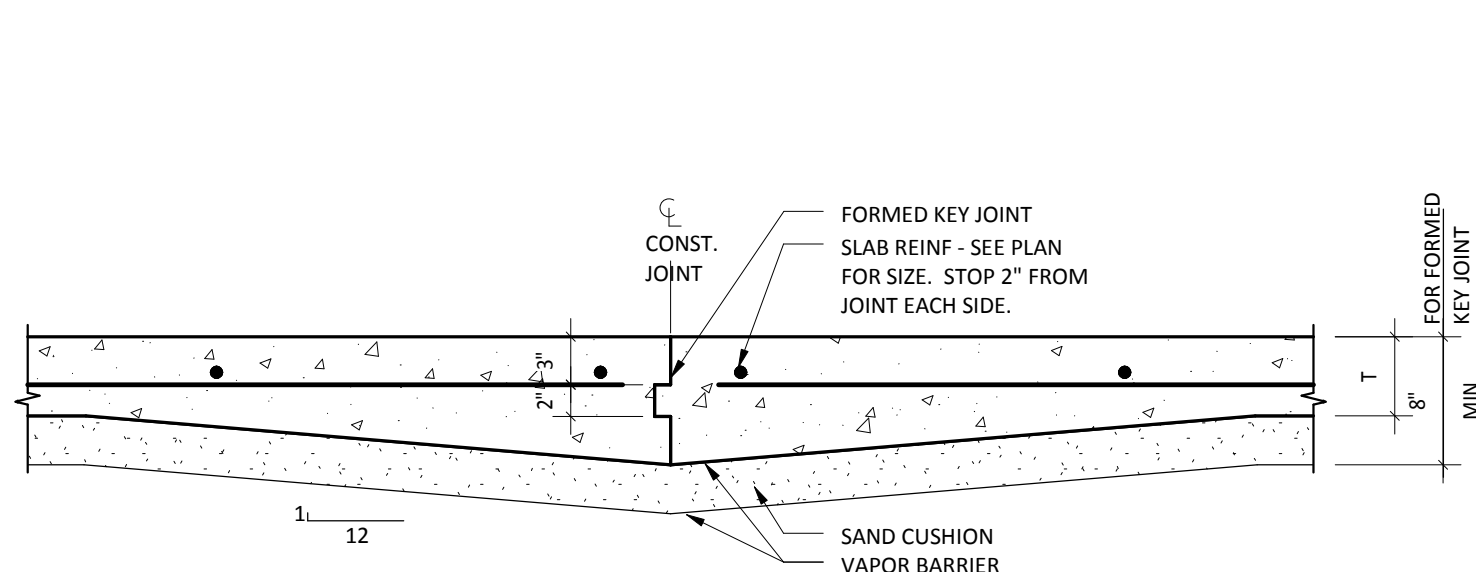
3 PLAN VIEW - BELOW CORBEL
S510 / SCALE: 1 1/2" = 1'-0"



4 PLAN VIEW - AT CORBEL
S510 / SCALE: 1 1/2" = 1'-0"

CONSTRUCTION DOCUMENTS 100%

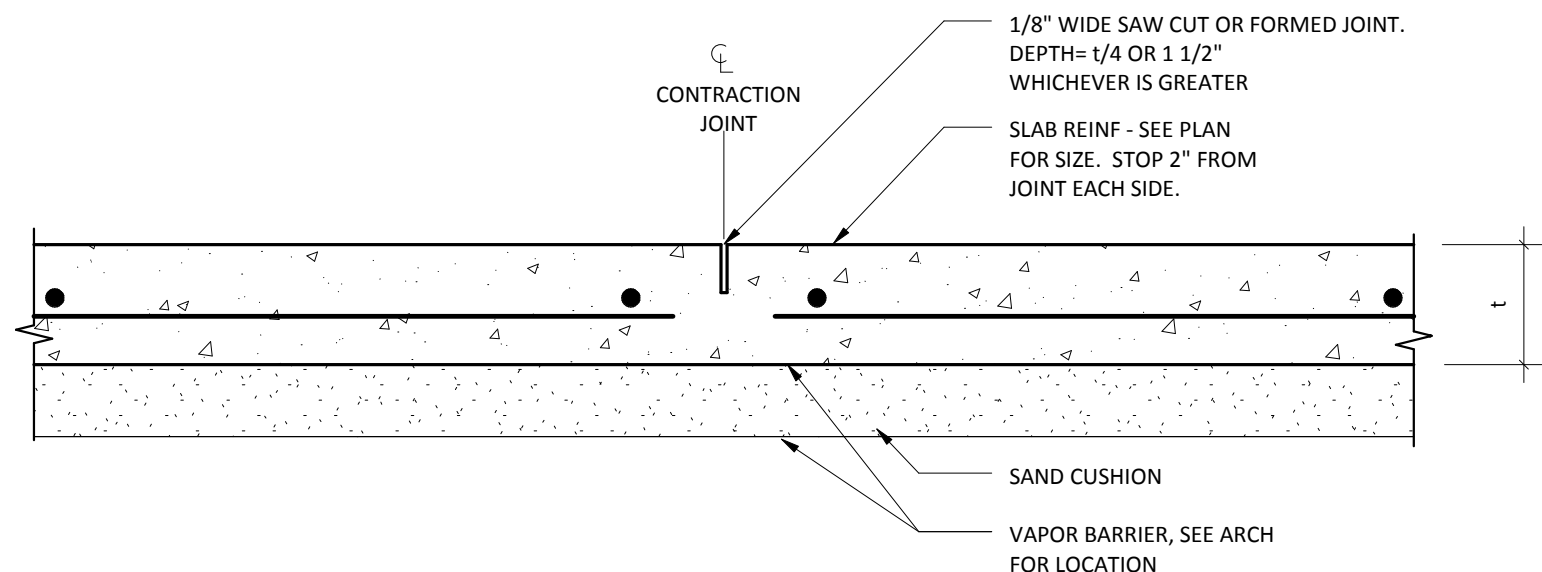
<div>VA FORM 08-6231</div>		<div>JLG architects Alexandria 525 Broadway Street Alexandria, MN 56308 phone 320.759.9030 facsimile 320.759.9062 www.jlgarchitects.com copyright © 2014</div>		<div><small>STAMPING:</small> I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATIONS OR OTHER WORK PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A QUALIFIED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. <i>Brian L. Asche, P.E.</i> DATE: 04.01.15 SIGN: [Signature] REG. NO.: [Blank]</div>	<div>DRAWING TITLE DETAILS</div>	<div>PROJECT TITLE CONSTRUCT NEW IT CENTER FOR HEALTHCARE TECHNOLOGY MANAGEMENT EXPANSION</div>	<div>DATE 04.01.15</div> <div>PLOT SCALE AS NOTED</div> <div>PROJECT NO. 656-14246</div> <div>CAD FILE XXX</div> <div>DRAWING NO. S510 (REV. 2 OF XX)</div>	<div>LOCATION VA MEDICAL CENTER ST. CLOUD, MN 56303</div>	<div>St. Cloud VA Health Care System Brainerd Montevideo Alexandria</div>			
<table border="1"><thead><tr><th>NO.</th><th>REVISION</th><th>DATE</th></tr></thead><tbody></tbody></table>		NO.	REVISION	DATE								
NO.	REVISION	DATE										



NOTE:

RETAINED-IN-PLACE GALVANIZED STEEL KEY FORM MAY BE USED IN LIEU OF FORMED KEY JOINT SHOWN. STEEL KEY FORM SHALL MATCH NOMINAL SLAB THICKNESS

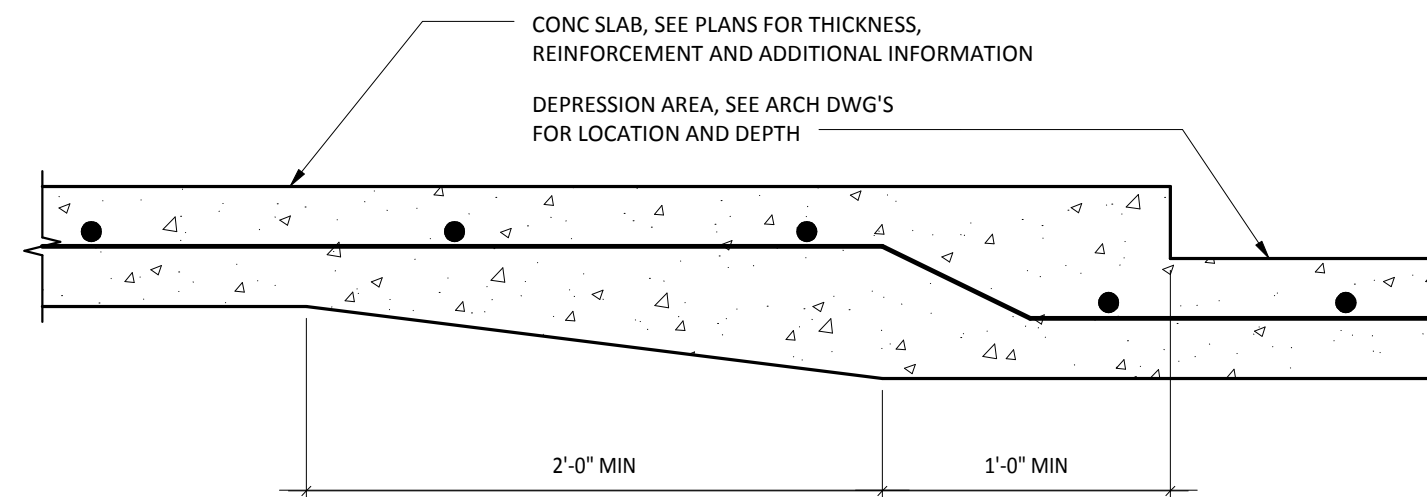
1 SLAB-ON-GRADE CONSTRUCTION JOINT
SCALE: NONE



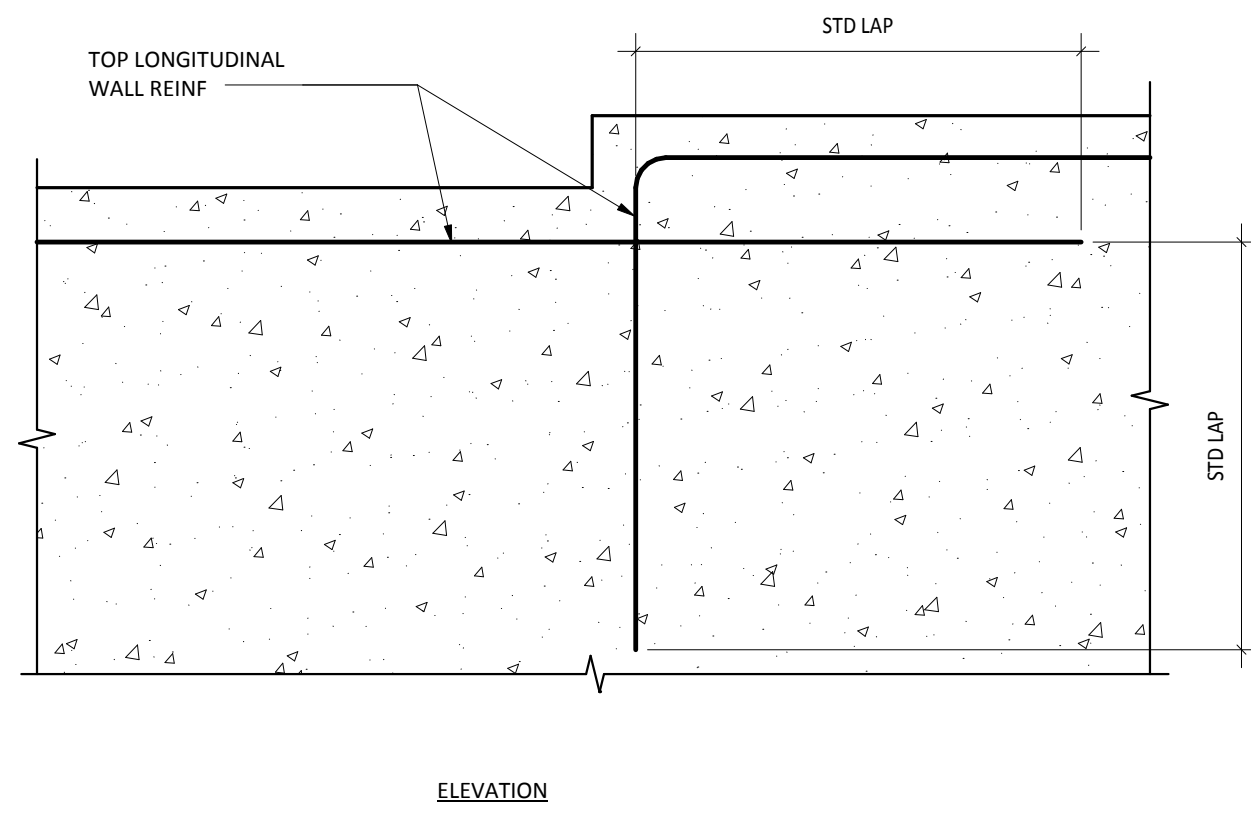
NOTES:

1. INSERT PREMOLDED PLASTIC, HARDBOARD, OR FIBERBOARD JOINT STRIP IN FRESH CONC OR SAW CUT AS SOON AS POSSIBLE AFTER SLAB FINISHING WITHOUT SPALLING OR DISLOCATING AGGREGATE.
2. SLAB ON GRADE CONSTRUCTION JOINTS MAY BE SUBSTITUTED FOR SLAB ON GRADE CONTRACTION JOINTS AT CONTRACTOR'S OPTION.

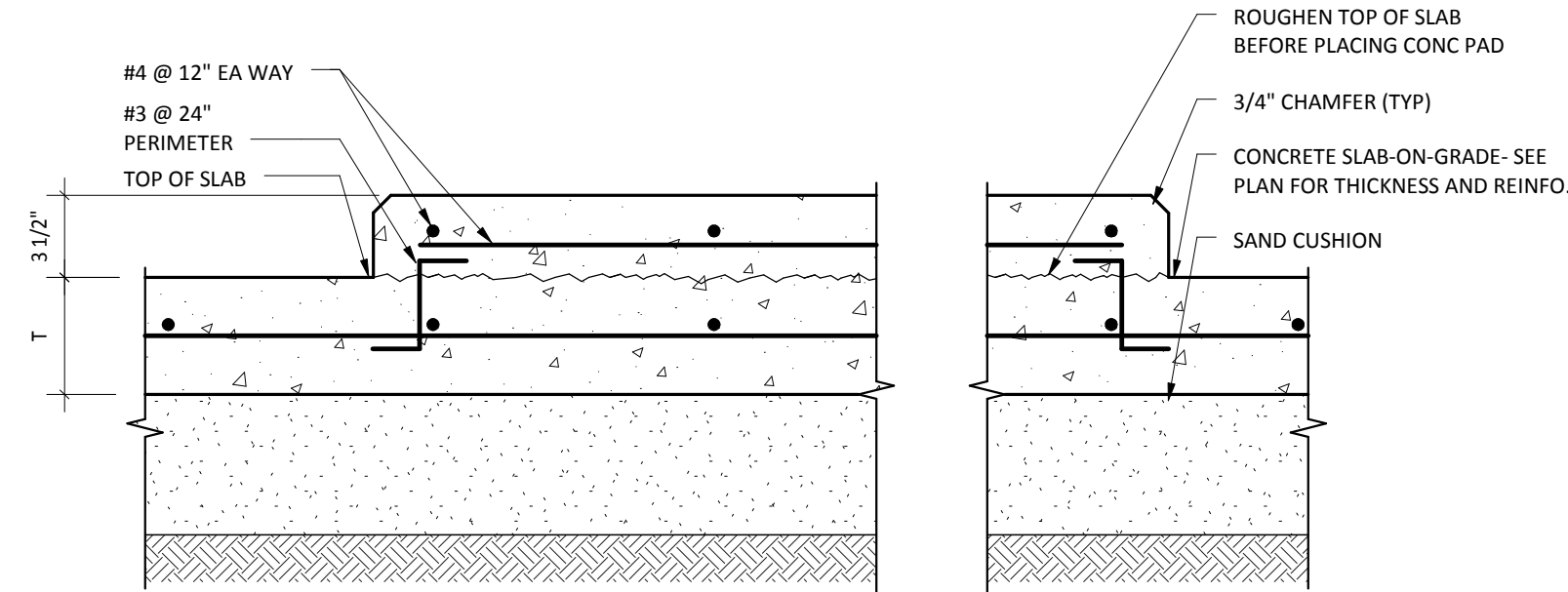
2 SLAB-ON-GRADE CONTRACTION JOINT
SCALE: NONE



3 DEPRESSED SLAB
SCALE: NONE



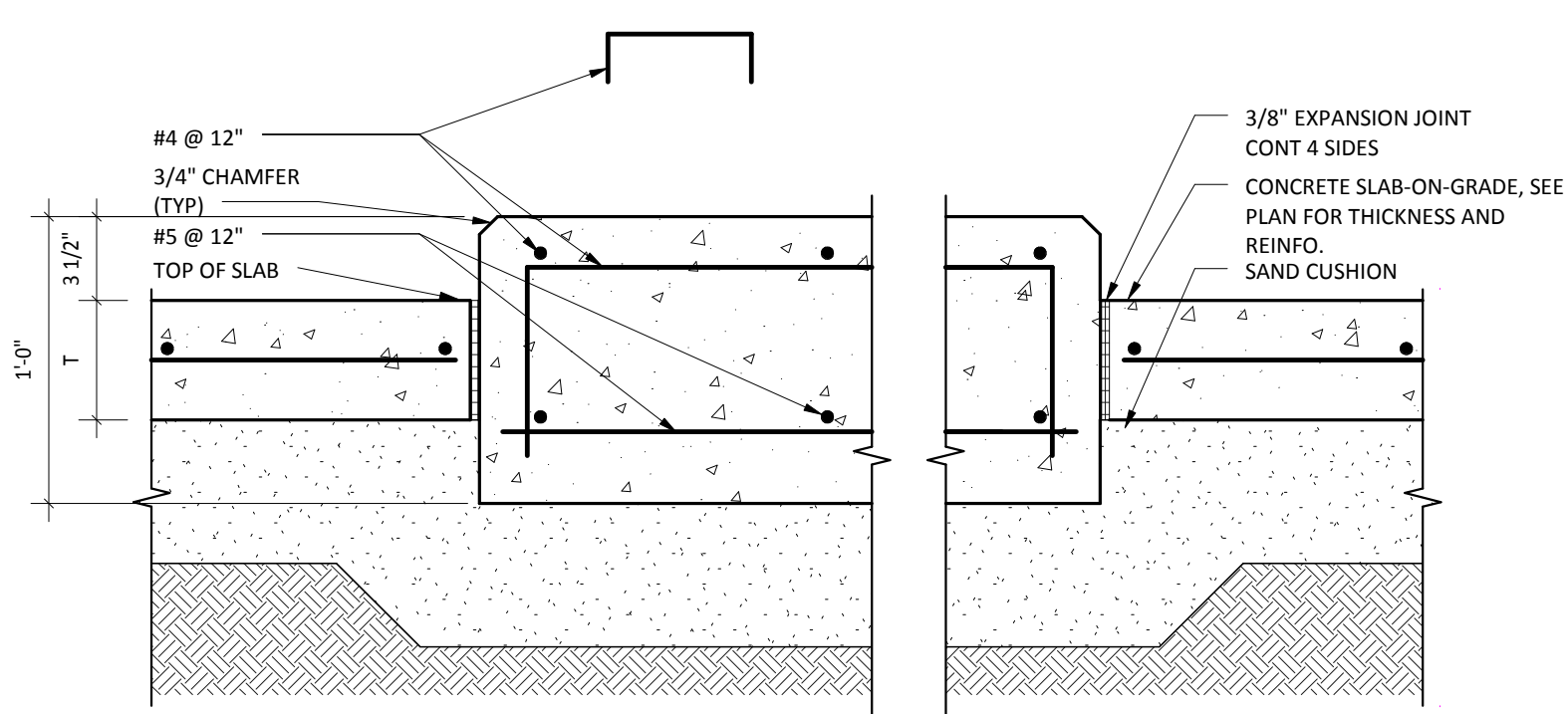
4 TYP. BLOCKOUT IN CONCRETE WALL
SCALE: NONE



NOTES:

COORDINATE LOCATION AND SIZE WITH MECHANICAL. MAINTAIN 6" CLEAR DISTANCE BETWEEN EDGE OF PAD AND EQUIPMENT ANCHORS.

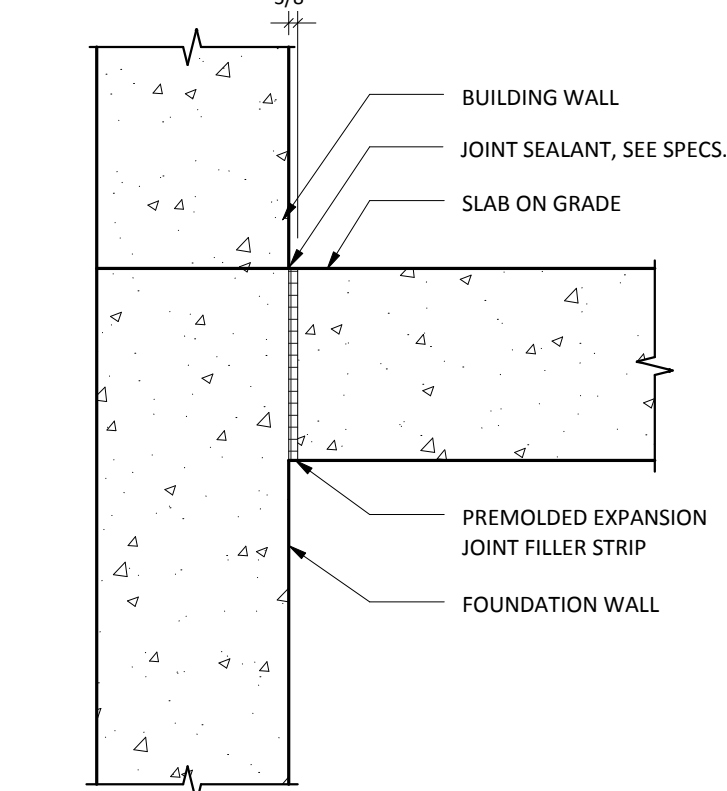
5 TYP. EQUIPMENT PAD
SCALE: NONE



NOTES:

COORDINATE LOCATION AND SIZE WITH MECHANICAL. MAINTAIN 6" CLEAR DISTANCE BETWEEN EDGE OF PAD AND EQUIPMENT ANCHORS.

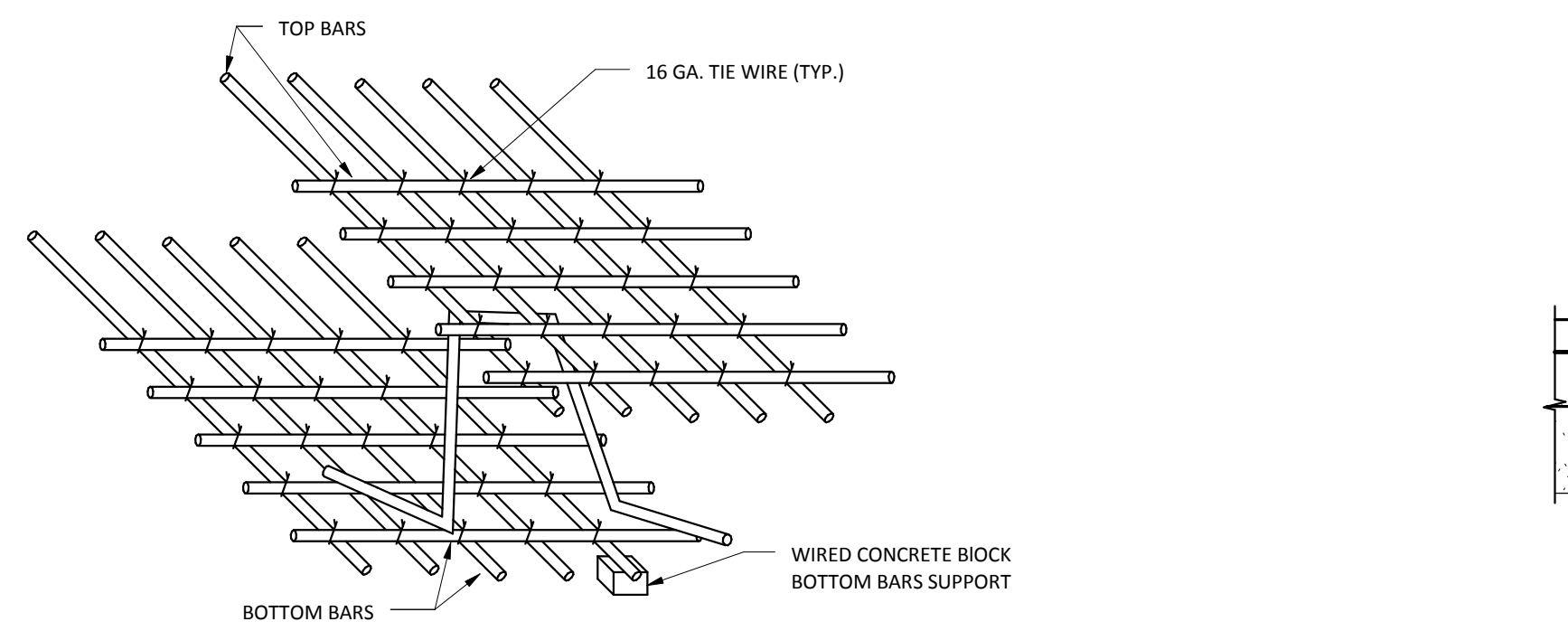
6 TYP. ISOLATION PAD
SCALE: NONE



NOTES:

SLAB-ON-GRADE REINFORCEMENT NOT SHOWN FOR CLARITY.

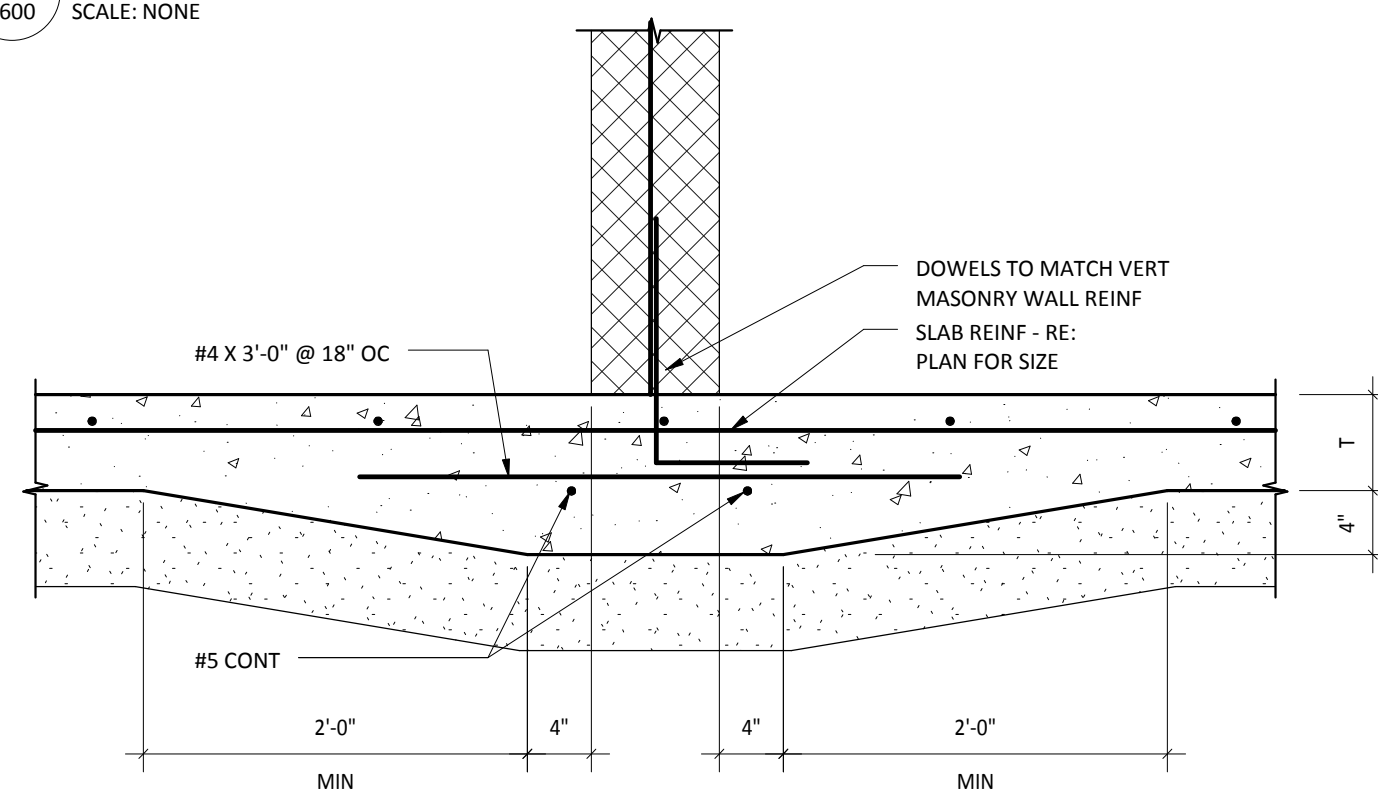
7 SLAB EXPANSION JOINT
SCALE: NONE



NOTE:

1. METAL BAR SUPPORTS, IF USED IN SLABS NOT ON GROUND, SHALL NOT MAKE CONTACT WITH FORMS.
2. REINFORCING BARS AND ACCESSORIES SHALL NOT BE IN CONTACT WITH ANY OTHER METAL INSTALLATION OR ACCESSORY EMBEDDED IN CONCRETE. A MINIMUM OF 2" CLEARANCE SHALL BE PROVIDED IN ALL CASES.

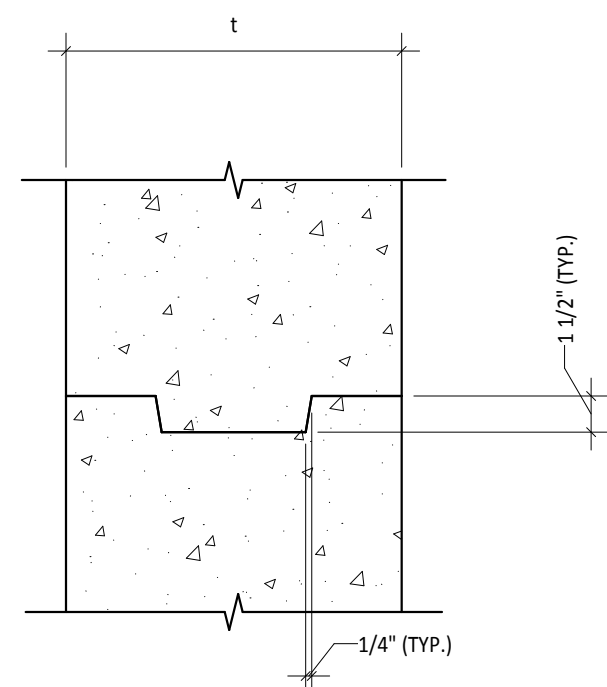
9 BAR & CHAIN REINFORCEMENT SUPPORT
SCALE: NONE



NOTE:

1. THICKENED SLAB DETAIL TYP FOR ALL INTERIOR NON-BEARING MASONRY PARTITIONS UNLESS OTHERWISE SHOWN.
2. SEE ARCHITECTURAL DRAWINGS FOR LOCATION OF ALL NON-LOAD BEARING MASONRY WALLS.

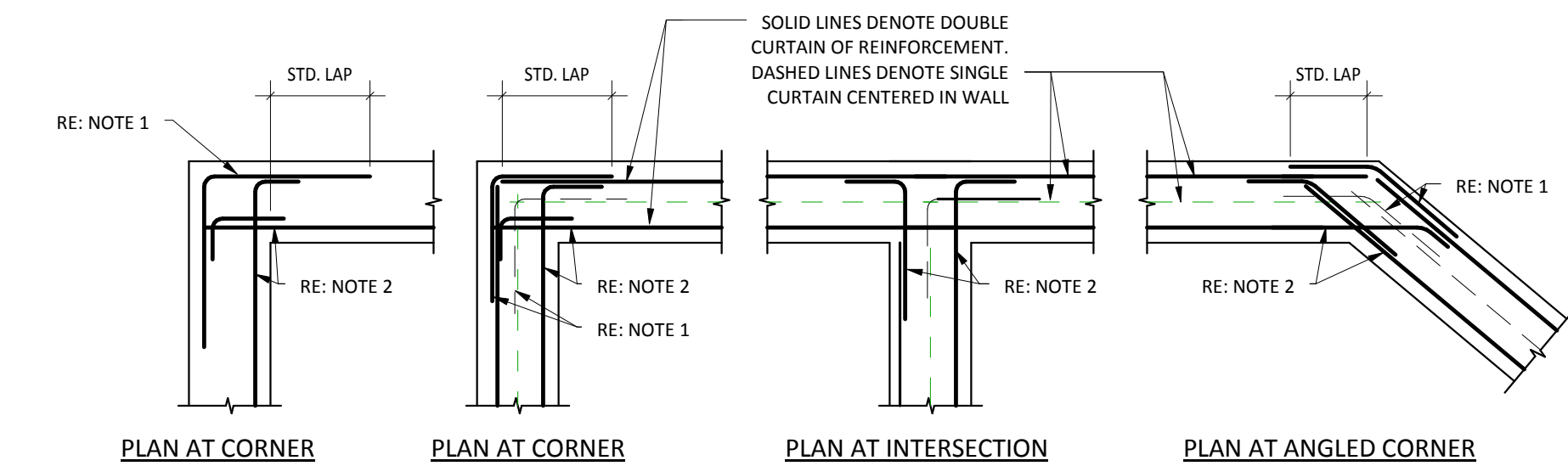
10 THICKENED SLAB @ CMU WALL
SCALE: NONE



NOTE:

1. USE 2 X 4 NOMINAL KEYWAY IN WALLS WHERE t < 12". USE 2 X 6 NOMINAL KEYWAY WHERE t > 12".
2. ALL CONSTRUCTION JOINTS SHALL HAVE KEYWAYS AND CONTINUOUS REINFORCEMENT (OR DOWELS) UNLESS OTHERWISE NOTED OR DIRECTED BY THE ENGINEER.

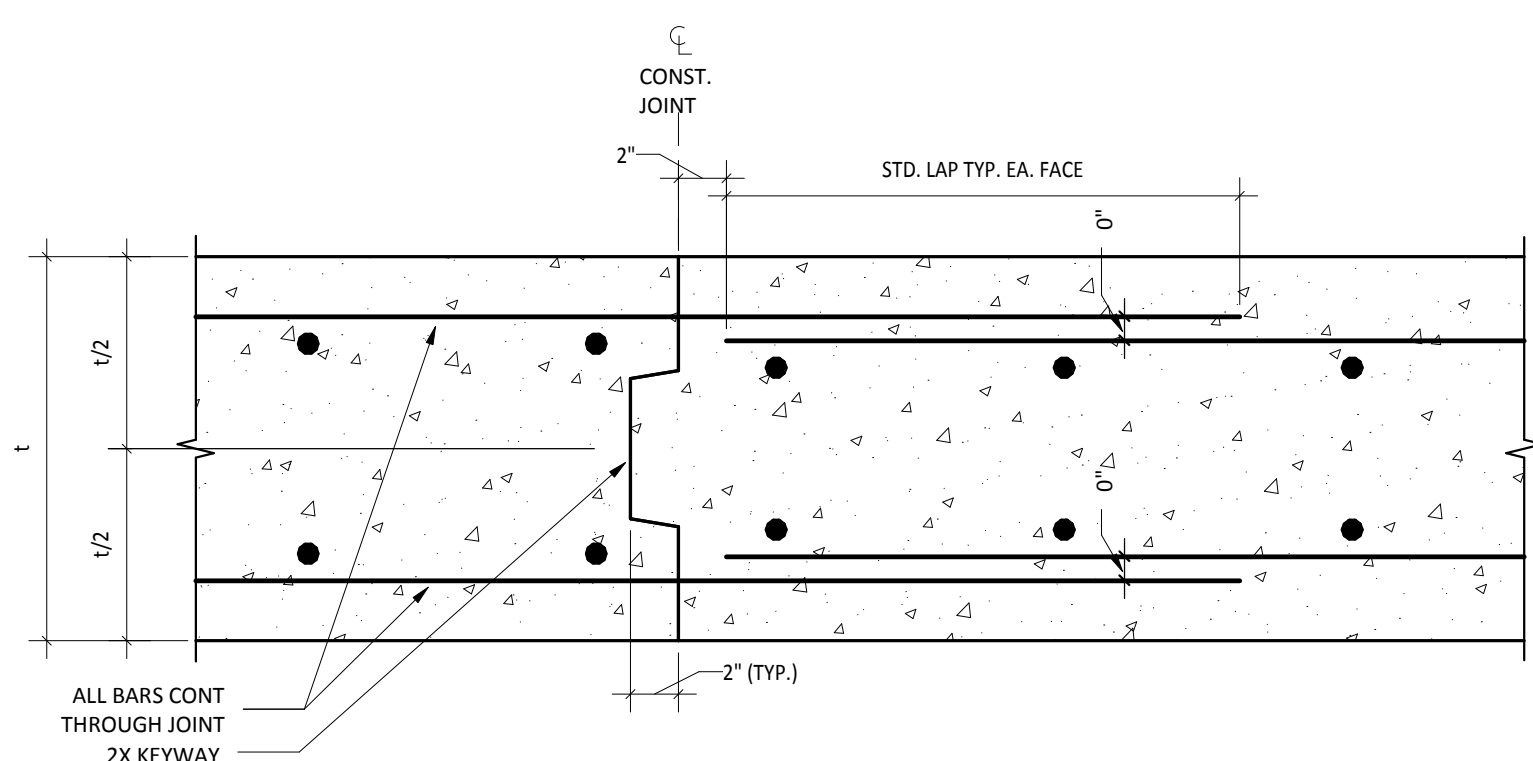
11 KEYWAY DETAIL
SCALE: NONE



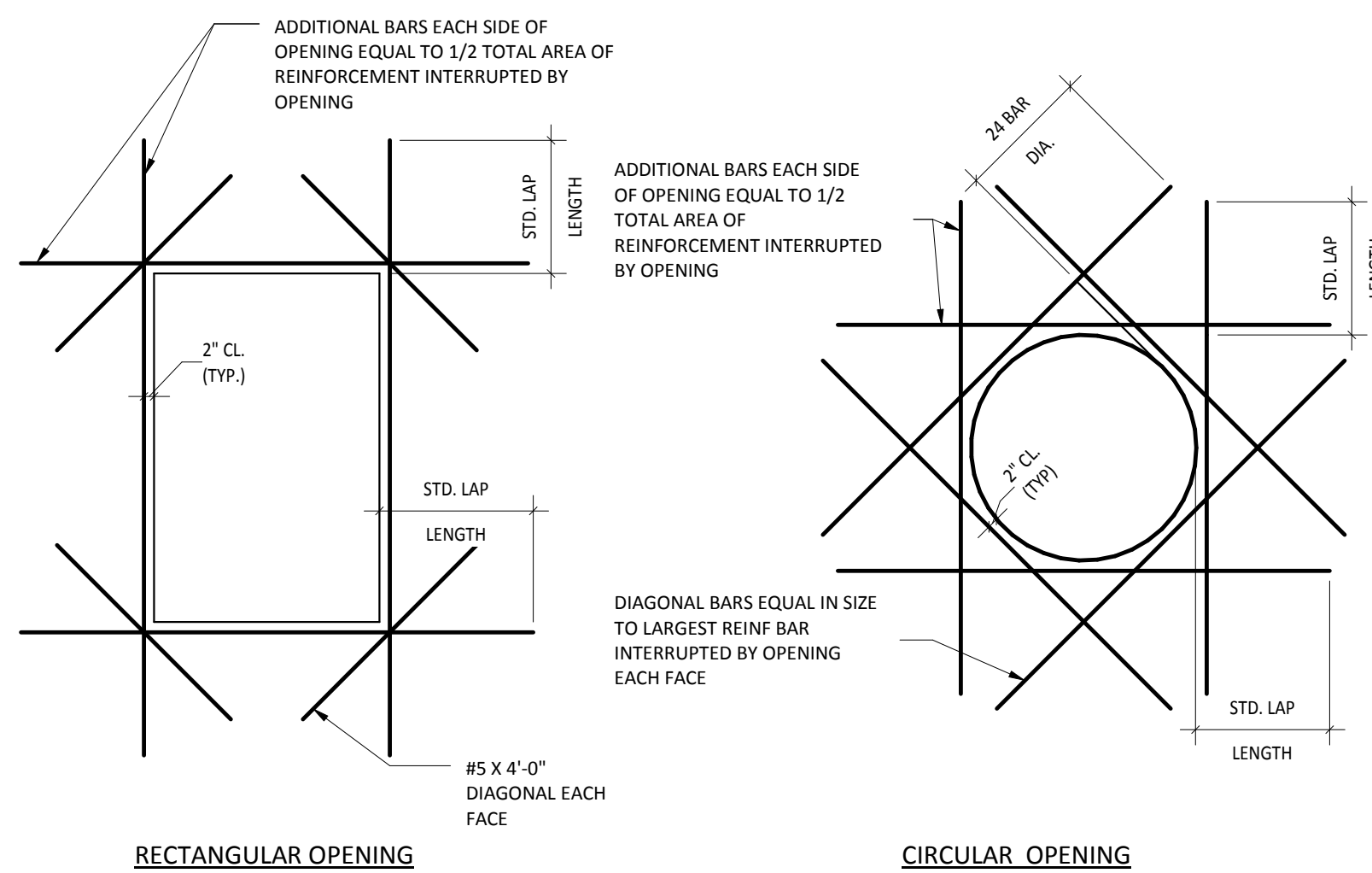
NOTE:

1. PROVIDE CORNER BARS WITH STANDARD LAP AS INDICATED
2. PROVIDE MAIN WALL REINFORCEMENT WITH STANDARD HOOK AT END, OR PROVIDE SEPARATE CORNER BARS WITH END HOOK AND LAP WITH MAIN WALL REINFORCEMENT
3. CORNER BARS SHALL MATCH HORIZONTAL WALL REINFORCEMENT.
4. RE: GENERAL NOTES FOR STANDARD LAP LENGTHS

8 HORIZONTAL REINFORCEMENT @ CONCRETE WALL CORNERS & INTERSECTIONS
SCALE: NONE



12 WALL CONSTRUCTION JOINT
SCALE: NONE



NOTE:

1. ALL OPENINGS 12" OR LARGER IN ANY DIRECTION SHALL BE REINFORCED IN ACCORDANCE WITH THIS DETAIL UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
2. SEE OTHER CONTRACT DRAWINGS FOR WALL AND SLAB OPENINGS NOT SHOWN ON STRUCTURAL DRAWINGS.
3. SEE GENERAL NOTES FOR STANDARD LAP LENGTHS.

13 ADDITIONAL REINFORCEMENT @ WALL & SLAB OPENINGS
SCALE: NONE

CONSTRUCTION DOCUMENTS 100%



Alexandria
525 Broadway Street
Alexandria, MN 56308
phone 320.759.9300
facsimile 320.759.9062
www.jlgarchitects.com
copyright © 2014

STANDARD:
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATIONS OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A QUALIFIED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.
DATE: 04.01.15
SIGNATURE: [Signature]
MIN. LICENSE NO.:
REG. NO.:

DRAWING TITLE
CONCRETE DETAILS

PROJECT TITLE
CONSTRUCT NEW IT CENTER
FOR HEALTHCARE
TECHNOLOGY
MANAGEMENT EXPANSION

DATE
04.01.15
PROJECT SCALE
AS NOTED
PROJECT NO.
656-14246

BUILDING No.
BA
CHECKED BY
BA
DRAWN
AW
CADD FILE
XXX

LOCATION
VA MEDICAL CENTER
ST. CLOUD, MN 56303

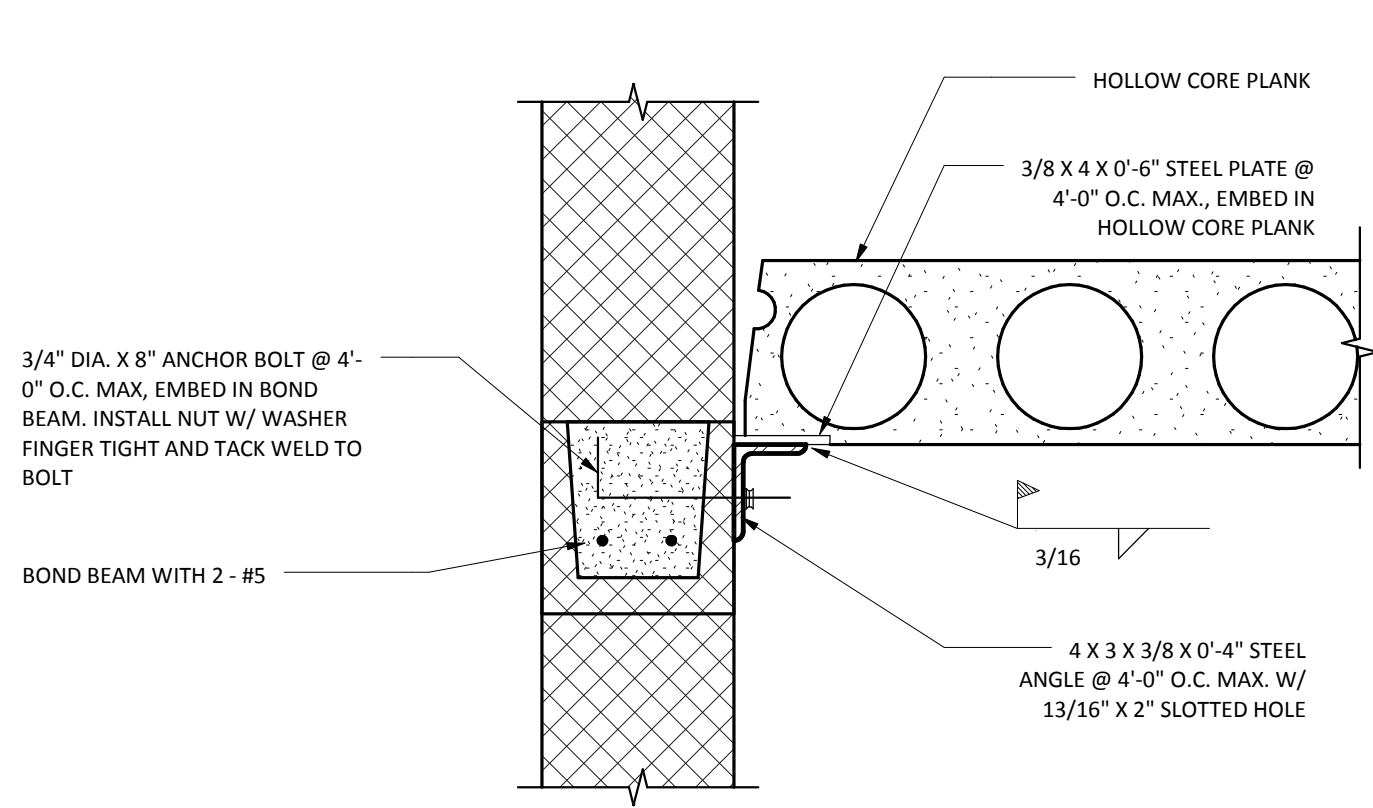
DRAWING NO.
\$600
SHEET 2 OF XX



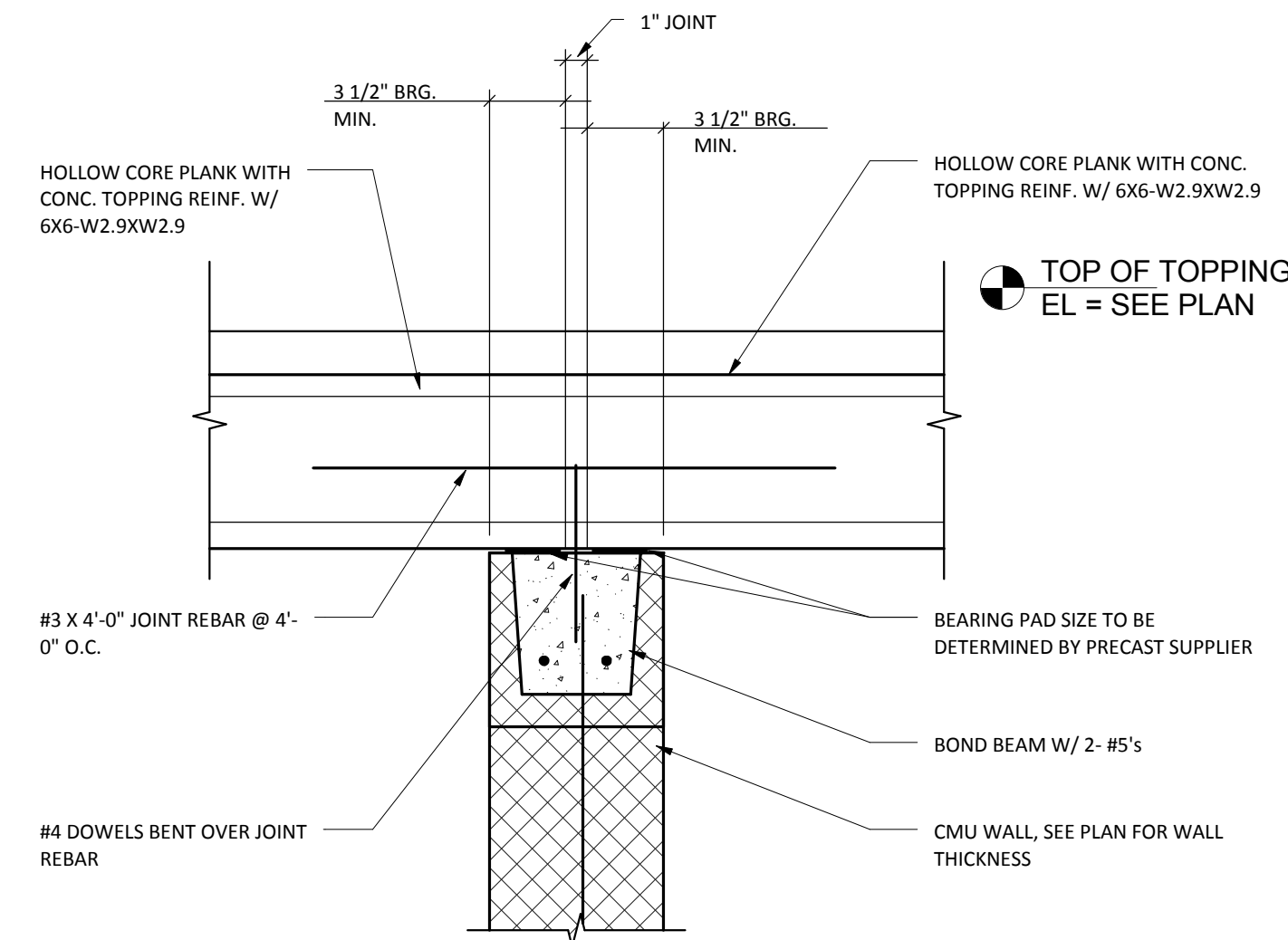
A
three inches = one foot
B
one and one half inches = one foot
C
one inch = one foot
D
three quarters inch = one foot
E
one half inch = one foot
F
three eighths inch = one foot
one quarter inch = one foot
one eighth inch = one foot



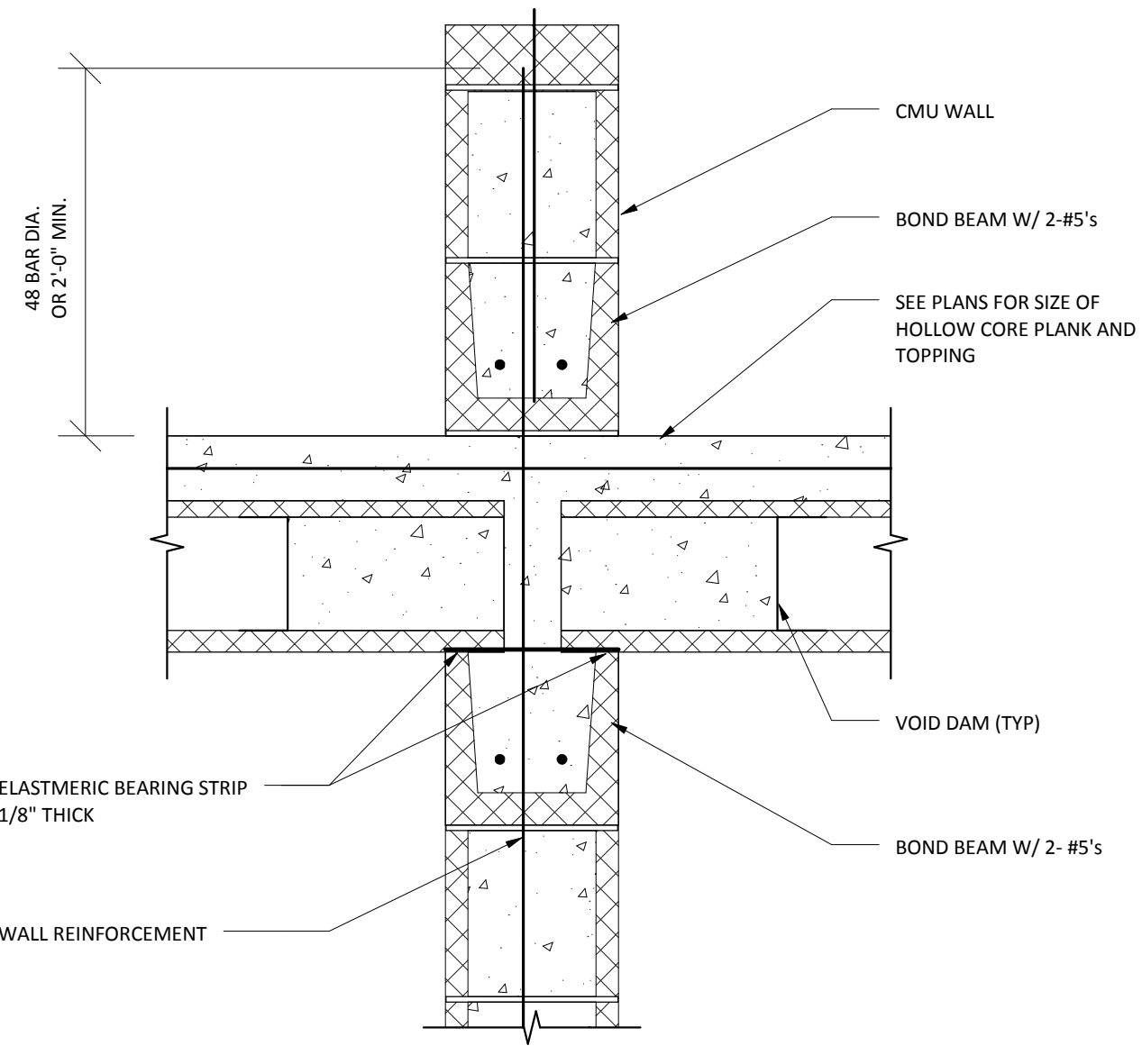
1 HOLLOWCORE BEARING ON CMU POCKET
SCALE: NONE



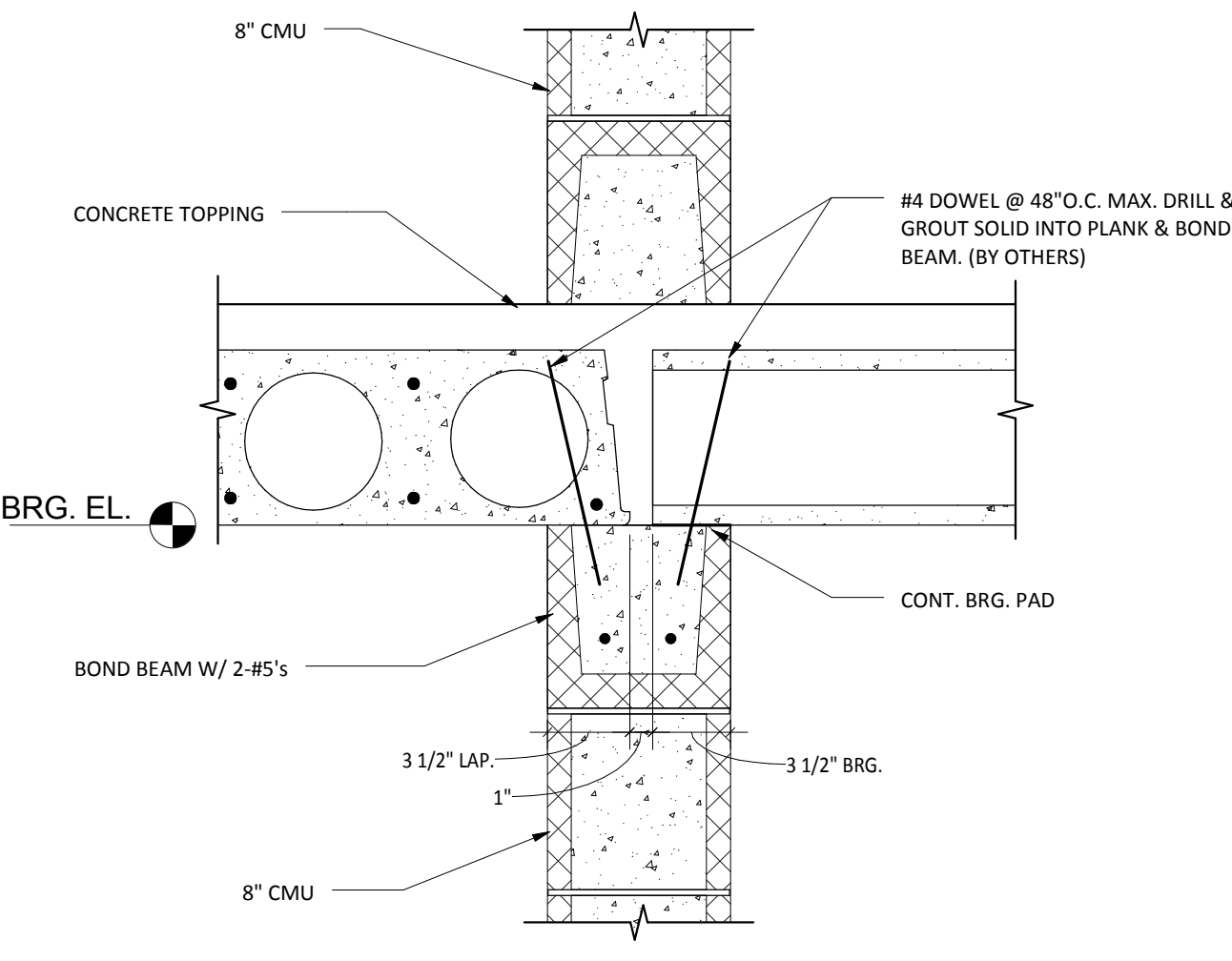
2 HOLLOW CORE BEARING ON CMU FACE
SCALE: NONE



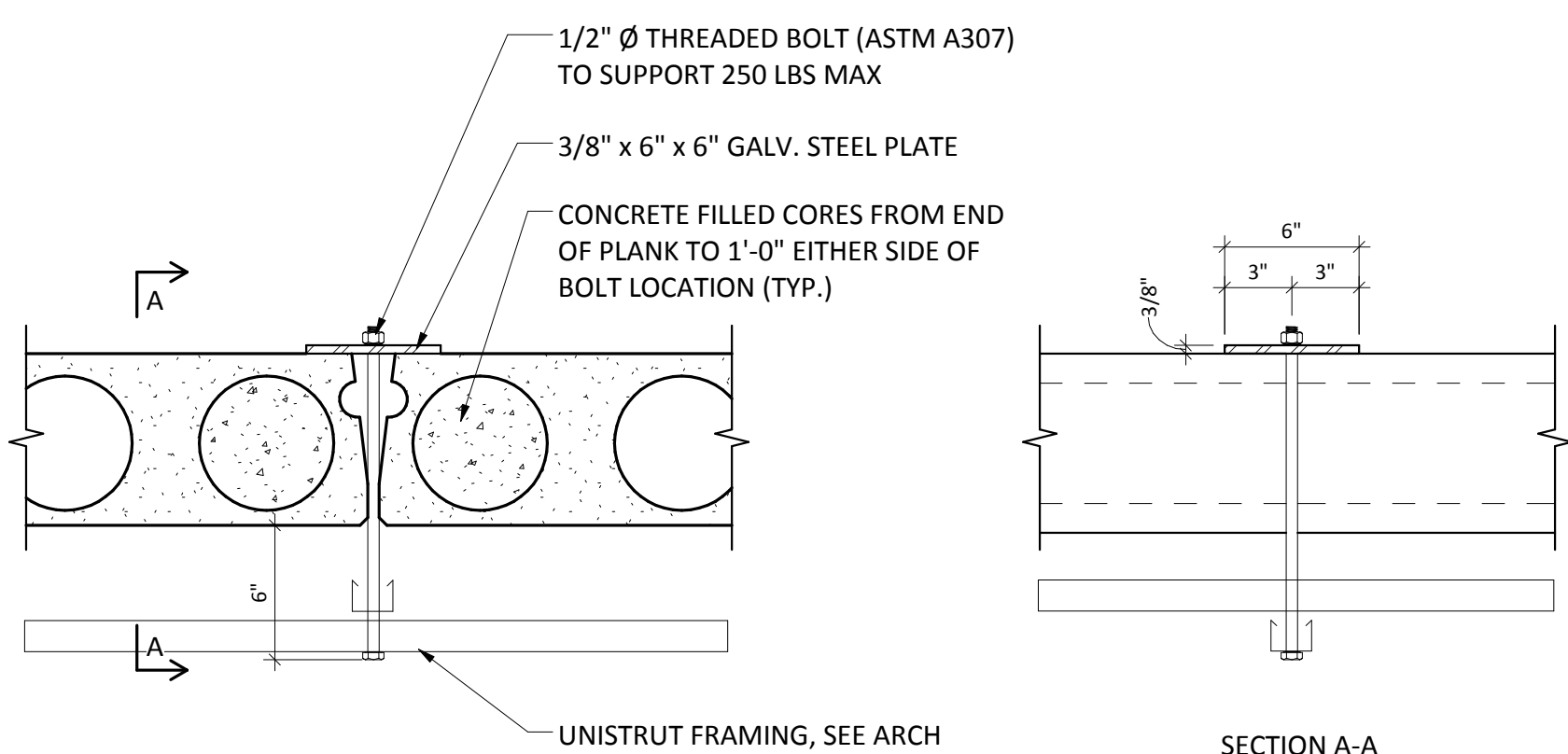
3 HOLLOWCORE BEARING ON INTERIOR CMU
SCALE: NONE



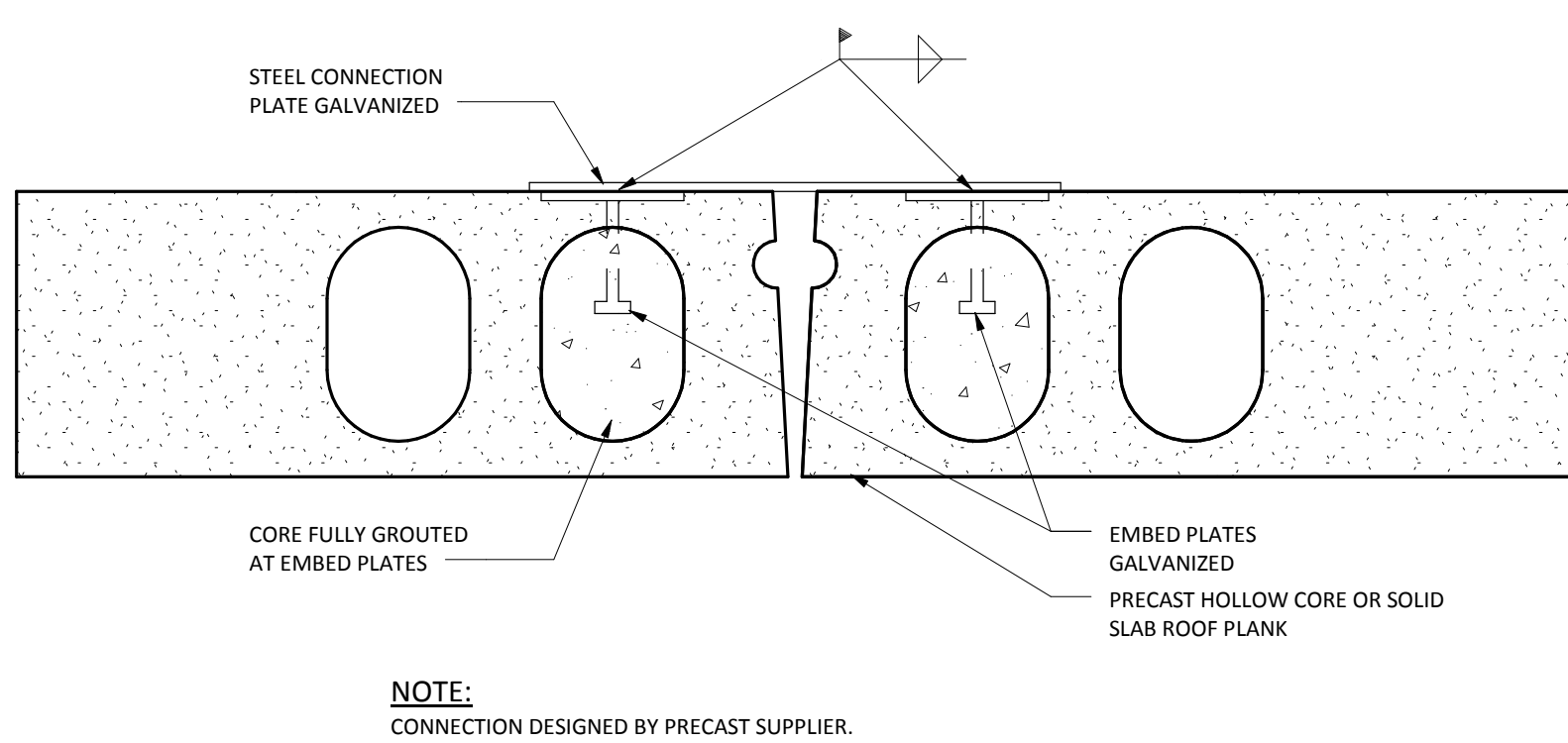
4 HOLLOW CORE BEARING ON INTERIOR CMU, WALL ABOVE
SCALE: NONE



5 HOLLOWCORE BEARING/LAP ON CMU
SCALE: NONE



6 CEILING SUPPORT DETAIL
SCALE: NONE



7 ROOF CONNECTION SECTION
SCALE: NONE

CONSTRUCTION DOCUMENTS 100%

No.	REVISION	DATE

VA FORM 08-6231



Alexandria
525 Broadway Street
Alexandria, MN 56308
phone 320.759.9030
facsimile 320.759.9062
www.jlgarchitects.com
copyright © 2014

STAMPED:
I HEREBY CERTIFY THAT THIS PLAN,
SPECIFICATION, OR REPORT WAS PREPARED BY
OR UNDER THE CLOSE PERSONAL SUPERVISION OF
A PROFESSIONAL ENGINEER OR ARCHITECT
WHO IS A DULY LICENSED PROFESSIONAL ENGINEER
OR ARCHITECT IN THE STATE OF MINNESOTA
DATE: 04.01.15
SIGN: [Signature]
FIRM: JLG
REG. NO.: [Number]

DRAWING TITLE
PRECAST CONCRETE DETAILS

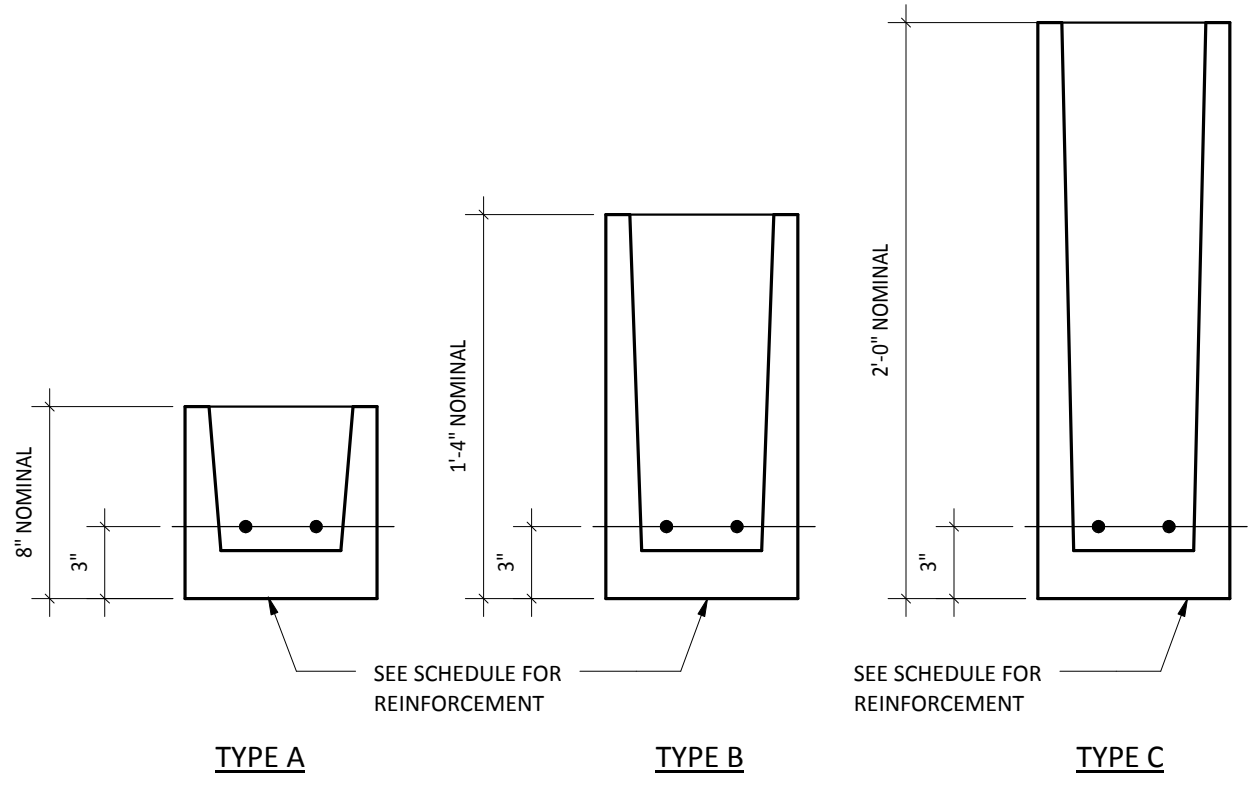
PROJECT TITLE CONSTRUCT NEW IT CENTER FOR HEALTHCARE TECHNOLOGY MANAGEMENT EXPANSION	DATE 04.01.15
BUILDING No. BA	CHECKED BY AW
LOCATION VA MEDICAL CENTER ST. CLOUD, MN 56303	DRAWING NO. S610 (REV. 2 OF XX)



MASONRY LINTEL SCHEDULE - NON LOAD BEARING WALL				
MASONRY OPENING (CLEAR SPAN)	LINTEL TYPE	MINIMUM BEARING EACH END	REINFORCEMENT	
			8"	12"
4'-0" OR LESS	A	8"	2 - #5	2 - #5
4'-1" TO 6'-4"	B	8"	2 - #5	2 - #6

LOOSE LINTEL SCHEDULE			
MASONRY OPENING (CLEAR SPAN)	LINTEL ANGLE	HORIZONTAL LEG	MINIMUM BEARING
4'-8" OR LESS	L 3 1/2"x3 1/2"x1/4"	3 1/2"	6"
4'-9" TO 6'-0"	L 4"x3 1/2"x1/4"	3 1/2"	6"
6'-1" TO 7'-4"	L 5"x3 1/2"x5/16"	3 1/2"	6"
7'-5" TO 8'-8"	L 6"x3 1/2"x5/16"	3 1/2"	8"

MASONRY LINTEL SCHEDULE - LOAD BEARING WALL					
MASONRY OPENING (CLEAR SPAN)	LINTEL TYPE	MINIMUM BEARING EACH END	8"	12"	16"
L1	A	8"	2 - #5	2 - #5	
L2	B	8"	2 - #5	2 - #5	
L3	C	8"			4 - #5



LINTEL NOTES:

1. USE MASONRY LINTELS AS SCHEDULED AT ALL OPENINGS THROUGH CMU WALLS NOT SHOWN OTHERWISE REFER TO ARCHITECTURAL AND MECHANICAL DRAWINGS FOR LOCATIONS AND SIZES.
2. MASONRY LINTELS SHALL BEAR ON GROUTED CMU JAMB SECTION. FULL WIDTH OF LINTEL, REINFORCED AS SHOWN ON TYPICAL MASONRY OPENING ELEVATION. LAP SPLICES IN LINTEL REINFORCEMENT NOT PERMITTED.
3. USE LOOSE LINTEL ANGLES TO SUPPORT 4" CMU OR BRICK OVER OPENINGS OR AS OTHERWISE APPROVED BY ENGINEER.
4. ALL EXTERIOR LOOSE LINTELS SHALL BE GALVANIZED
5. JAMB BAR SIZE SHALL MATCH VERTICAL WALL REINFORCEMENT (#5'S MINIMUM).
6. EXTEND JAMB BARS IN EXTERIOR WALLS ABOVE AND BELOW OPENINGS 6" INTO BOND BEAMS AT INTERMEDIATE FLOORS OR ROOF. PROVIDE DOWEL BARS FROM FOUNDATION.

MASONRY LINTELS

SCALE: NONE

LINTEL NOTES:

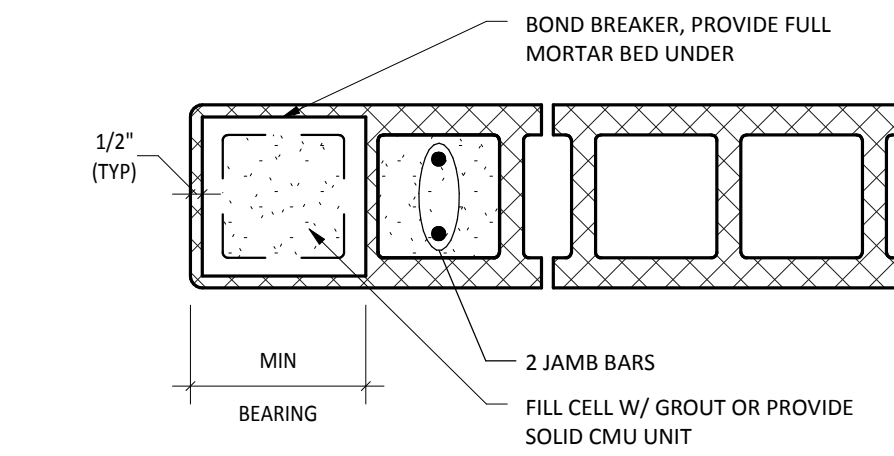
1. JAMB BAR SIZE SHALL MATCH VERTICAL WALL REINFORCEMENT (#5 MINIMUM).
2. EXTEND JAMB BARS IN EXTERIOR WALLS ABOVE AND BELOW OPENING 6" INTO BOND BEAMS AT INTERMEDIATE LOORS OR ROOF. PROVIDE DOWEL BARS FROM FOUNDATION.

TYP. MASONRY OPENING

SCALE: NONE

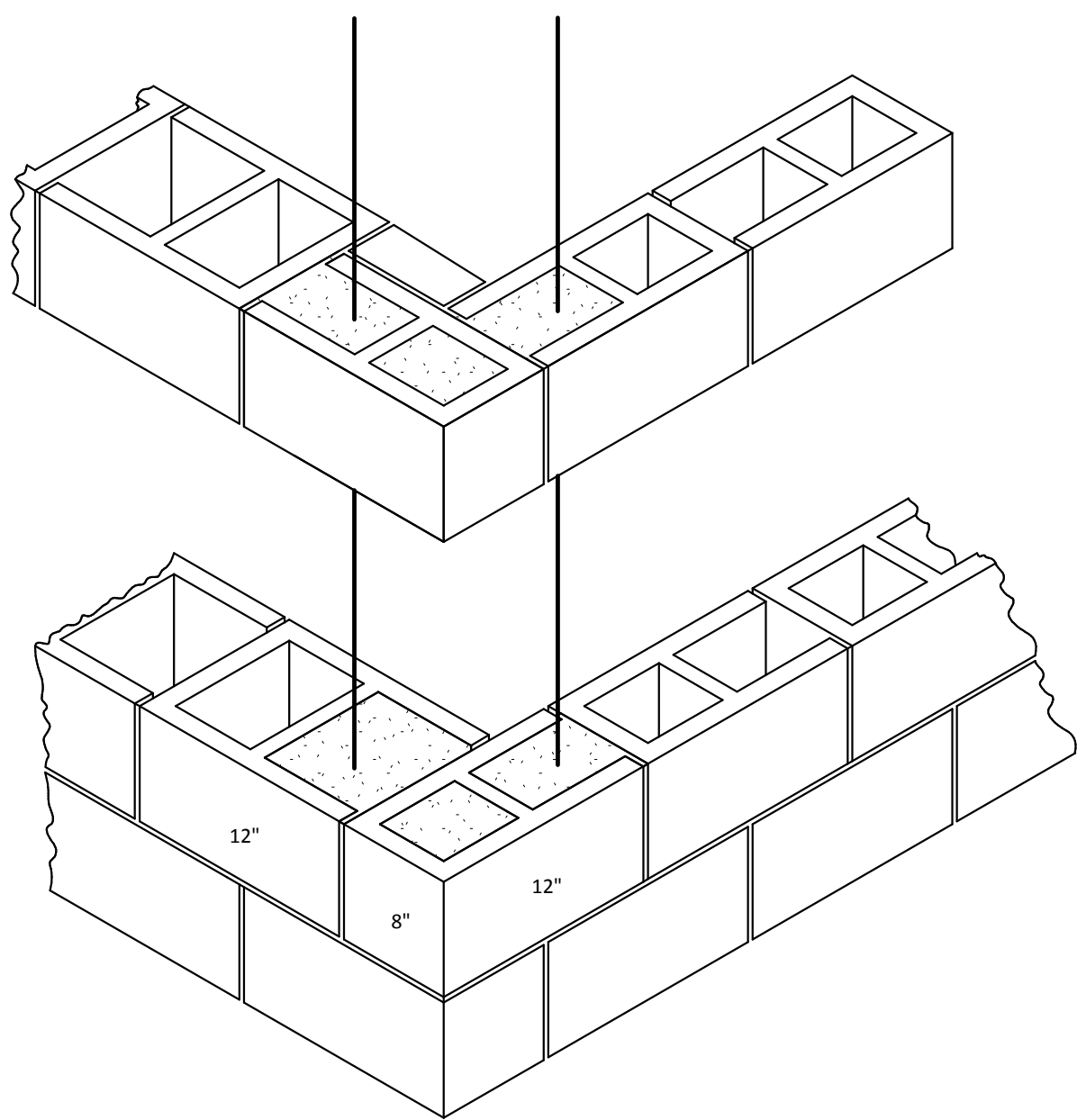
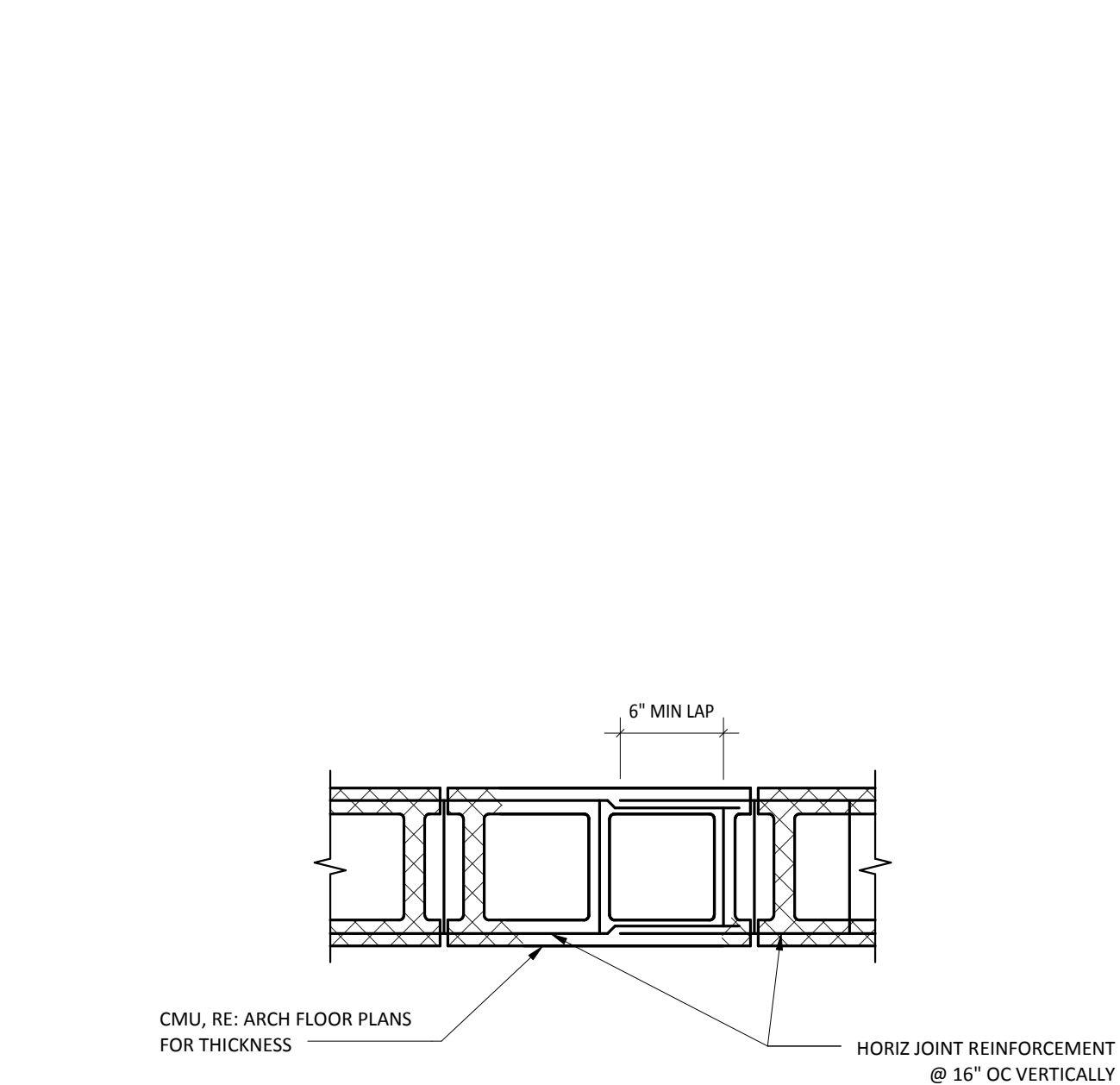
CMU @ LINTEL SECTION

SCALE: NONE



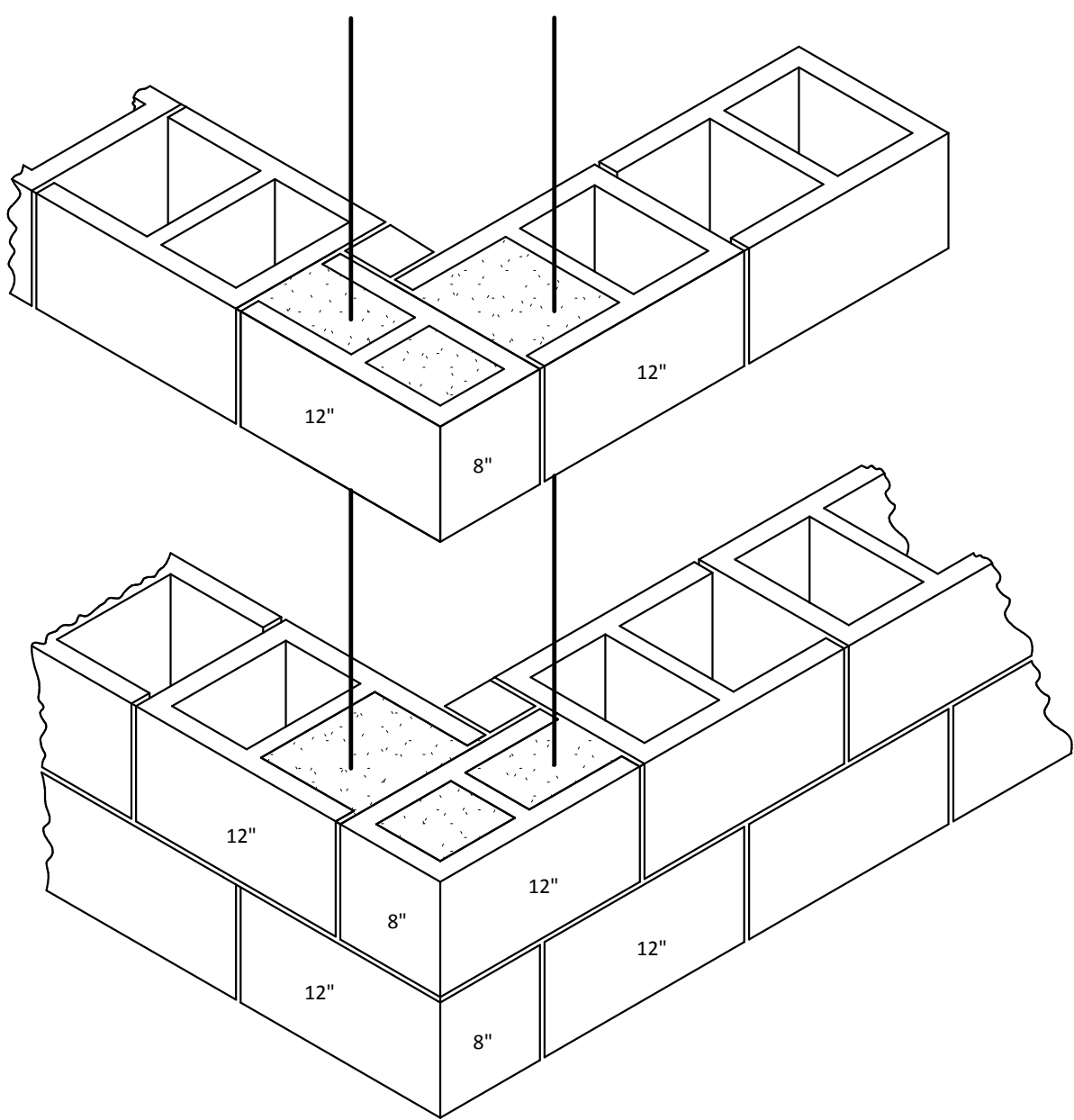
CMU @ END SECTION

SCALE: NONE



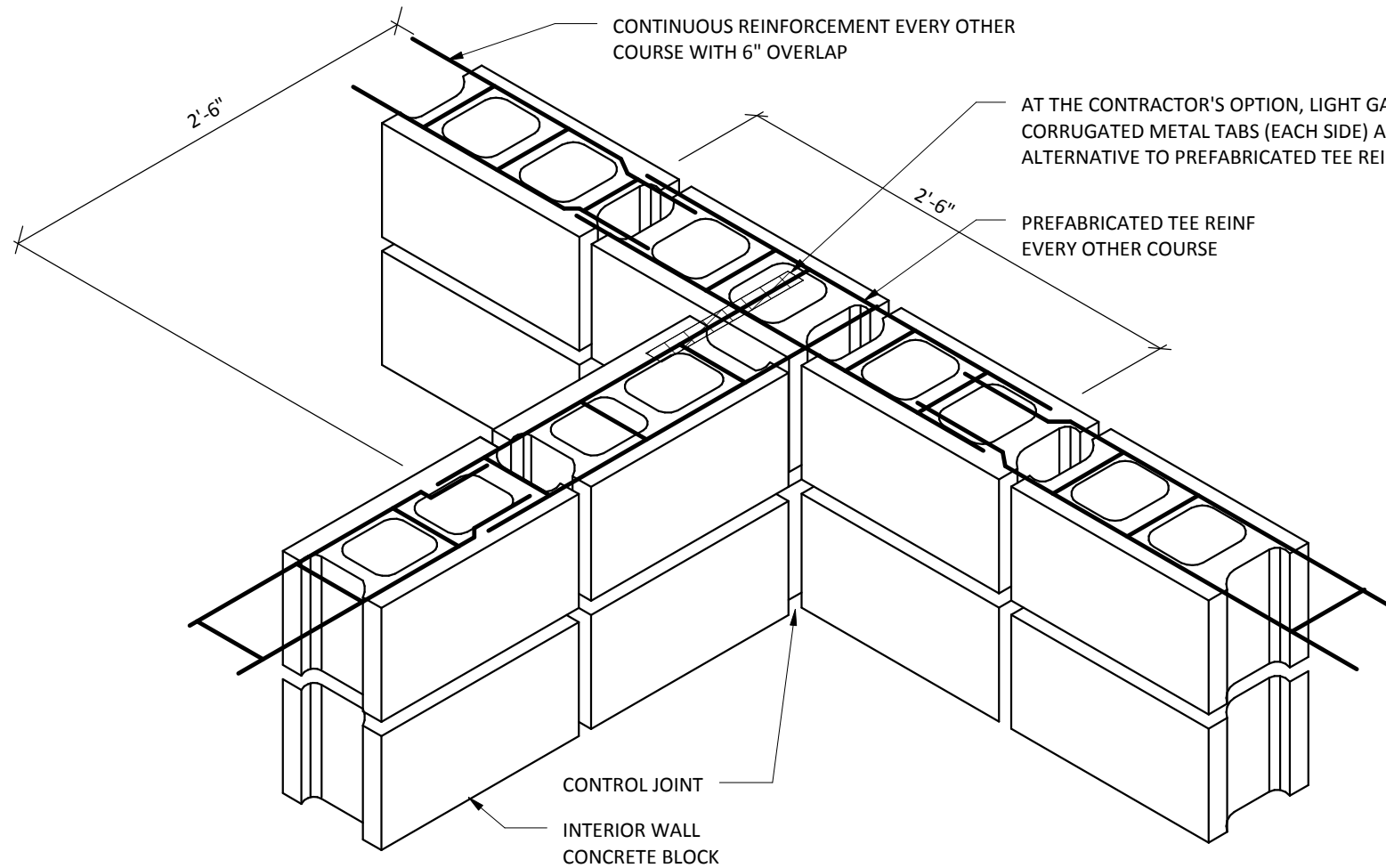
8" TO 12" CMU CORNER DETAIL

SCALE: NONE



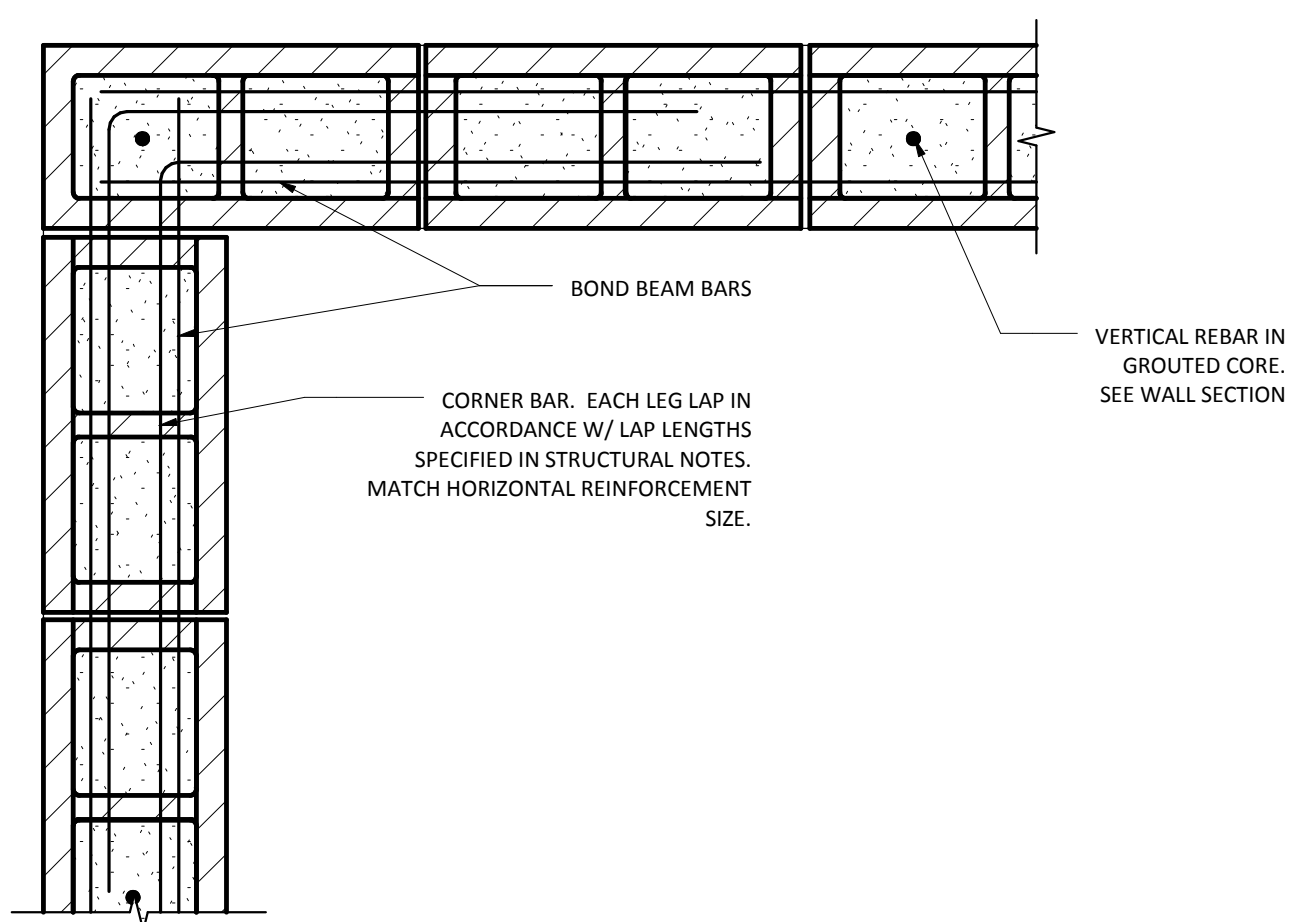
12" CMU CORNER DETAIL

SCALE: NONE



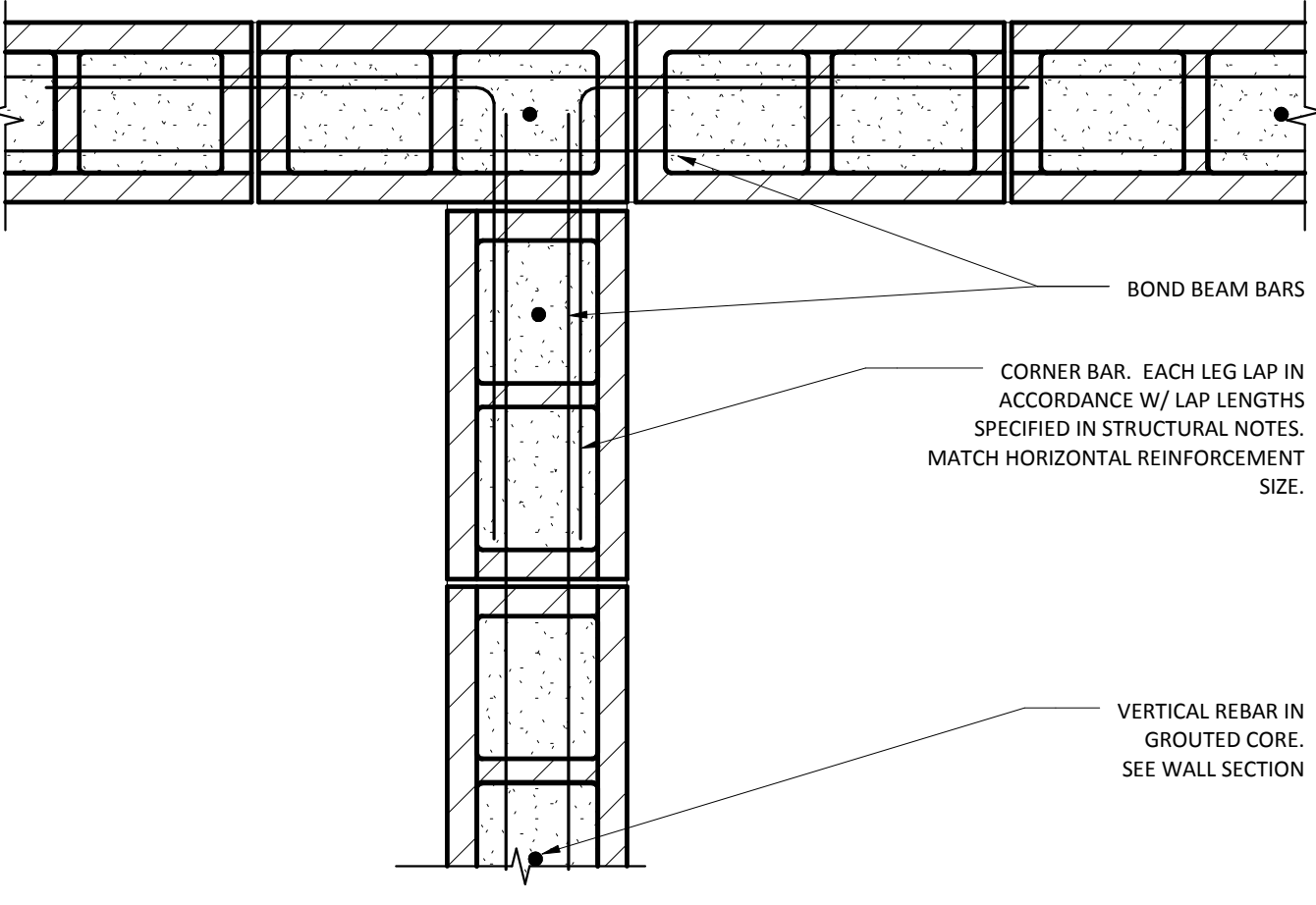
MASONRY WALL INTERSECTION

SCALE: NONE



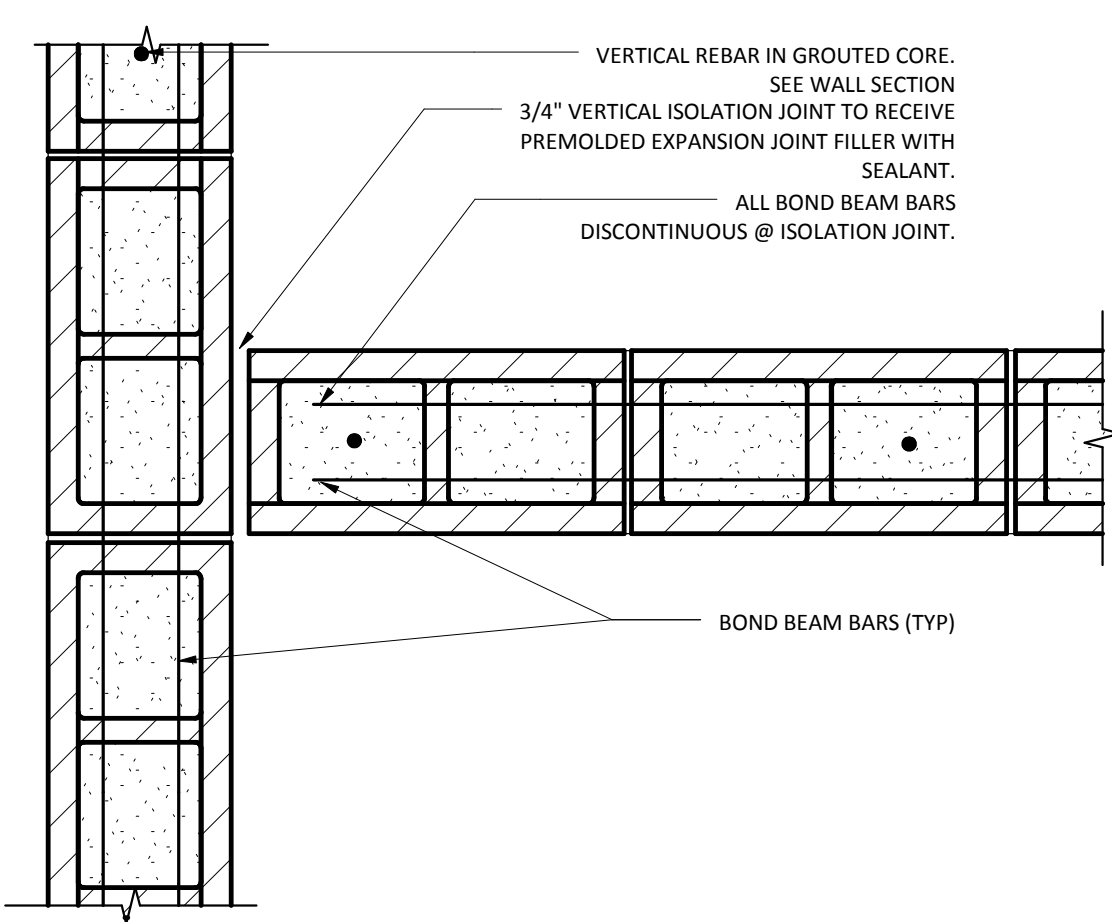
BOND BEAM CORNER REINFORCEMENT

SCALE: NONE



BOND BEAM INTERSECTION REINFORCEMENT

SCALE: NONE



BOND BEAM ISOLATION INTERSECTION

SCALE: NONE

CONSTRUCTION DOCUMENTS 100%

NO	REVISION	DATE

VA FORM 08-6231



Alexandria
525 Broadway Street
Alexandria, MN 56308
phone 320.759.9030
facsimile 320.759.9062
www.jlgarchitects.com
copyright © 2014

STANDARD:
I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATIONS, OR REPORT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A QUALIFIED PROFESSIONAL ENGINEER UNDER THE LICENSE OF THE STATE OF MINNESOTA.
Brian J. Aschke
DATE: 04.01.15
SIGN: [Signature]
REG. NO.: [Number]

DRAWING TITLE
MASONRY DETAILS

PROJECT TITLE
CONSTRUCT NEW IT CENTER
FOR HEALTHCARE
TECHNOLOGY
MANAGEMENT EXPANSION

BUILDING NO. BA
CHECKED BY. AW
DATE. 04.01.15

DATE
04.01.15
PROJECT NO.
656-14246

CAD FILE
XXX
DRAWING NO.
S620
SHEET 2 OF XX

